

The Progressively Accelerated Degradation of the Environment

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We address this issue, in general in Chapters I and II, in The role of environmental education in Latin America. UNESCO, 1978. In our book The Armour of Capitalism. The power of transnational corporations in the contemporary world. Icaria editorial. Spain, 2010, we dedicate a paragraph to the same topic with the title Environmental degradation (pages 137 to 152). We add that paragraph as an Annex to this note.

I. The reason explaining the progressively accelerated degradation of the environment is convoluted because it is elicited by various factors. Yet the root of it is in the uncontrolled production of all kinds of objects and products, some necessary and others not, as a result of what in economics is called «extended reproduction».

This reproduction is inherent to the capitalist system. It is essential to know how it works in order to understand and explain the ecological disaster. Sweezy wrote:

«It is inevitable to conclude that the simple reproduction implies the abstraction of the most essential thing in the capitalist: his interest in expanding his capital. He goes about it by converting a part —often the greatest one— of its surplus value into additional capital. His increase in capital allows him to appropriate even more surplus value, which in turn becomes additional capital and so on. This is the process, known as capital accumulation, that constitutes the force driving capitalist development».¹



¹ Paul Sweezy, The Theory of Capitalist Development, Monthly Review Press, 1942

Neurobiologists may be able to locate this compulsive zeal to accumulate somewhere in the brain of many large business chiefs, but Marx had already assessed it in his own way: *Only as personified capital is the capitalist respectable. As such, he shares with the miser the passion for wealth as wealth. Moreover, the competition makes the immanent laws of capitalist production to be felt by each individual capitalist, as external coercive laws. It compels him to keep constantly extending his capital, in order to preserve it*.²

Already in the Communist Manifesto of 1848 you can read:

... «*The need of a constantly expanding market for its products chases the bourgeoisie over the entire surface of the globe. It must nestle everywhere, settle everywhere, establish connexions everywhere. The bourgeoisie has through its exploitation of the world market given a cosmopolitan character to production and consumption in every country. To the great chagrin of Reactionists, it has drawn from under the feet of industry the national ground on which it stood. All old-established national industries have been destroyed or are daily being destroyed. They are dislodged by new industries, whose introduction becomes a life and death question for all civilised nations, by industries that no longer work up indigenous raw material, but raw material drawn from the remotest zones; industries whose products are consumed, not only at home, but in every quarter of the globe. In place of the old wants, satisfied by the production of the country, we find new wants, requiring for their satisfaction the products of distant lands and climes*».

Very schematically, the simple reproduction consists in that, in the production cycle, at its end, the capitalist retains the same machinery, replaces the one that is broken or spent, pays the wages and saves or spends the profit without expanding the capital of his business. But in fact, capitalism does not work like this: to compete in the market, the capitalist has to improve his production with new investments and at the same time satisfy his desire to earn more and more. But to achieve this goal he needs to sell what he produces, including surpluses. Some of the latter (food, textiles, appliances) are not sold and in rich countries they are destroyed or recycled. In France, more than 650 million euros of new non-food products that were not sold are thrown away annually.³ And in the world 1,3 billion tons of food products are thrown away per year, from the moment they were produced and processed until they were consumed, which is tantamount to half a kilogram per day per human being.⁴ More and more products are manufactured with real or presumed innovations to entice the consumer, and an advertising effort aimed at the potential consumer is deployed using the most sophisticated means available to marketing.⁵

Worldwide advertising spending is gigantic and increases year after year. In 2019 it exceeds 550 trillion dollars.⁶ Financial capital contributes to exacerbate consumerism by easing lending. Consumers are indebted until their purchasing power drastically decreases or is exhausted and then the crises explodes,⁷ with the ensuing closure of less

² See: Marx Capital, chapter XXIV, Book 1, part seventh, «Section 3: Separation of Surplus-Value into Capital and Revenue. The Abstinence Theory». See also Marx, Third manuscript of the economic philosophic manuscripts.

³ See: La France envisage d'interdire la destruction des invendus de produits non alimentaires. 0,37 cm

⁴ See: https://www.lemonde.fr/les-decodeurs/article/2018/06/07/le-gaspillage-alimentaire-en-france-en-chiffres_5311079_4355770.html

⁵ There is a Persuasive Technology Laboratory run by B. J Fogg at Stanford University. His book says it all: Persuasive Technology: Using Computers to Change What We Think and Do (Interactive Technologies)] This subject is also called captology; a topic studied by Daniel Kahneman, a psychologist with a Nobel Prize in Economics: why do people buy one thing and not another? (the decision in conditions of uncertainty or election theory). With a “neurobiological” aggregate (neuroeconomics and neuromarketing) that is used in marketing operations to promote consumerism.

⁶ <https://es.statista.com/estadisticas/600808/gasto-publicitario-a-nivel-mundial/>

⁷ It is not the customary cyclical crises of overproduction but they play a fundamental role in financial capital. The hypertrophy and deregulation of financial capital allows, on the one hand, to strip workers and small savers in the financial sphere and, on the other hand, to greatly expand credit in order to create artificial purchasing power in the more modest classes, who live in debt and become increasingly indebted. See: Las crisis financieras, en “La armadura del capitalismo. El poder de las sociedades transnacionales en el mundo contemporáneo”. Alejandro Teitelbaum, Editorial Icaria, España, 2010. págs 58 and consecutive pages. See also from Alejandro Teitelbaum Inside Capitalism, Part IV “Crisis” (https://www.jussempier.org/Resources/Economic%20Data/Resources/ATeitelbaum_Inside_capitalism.pdf)

competitive companies and the progressive concentration of production in fewer hands (oligopolies and monopolies).⁸ Yet the reasons for the expanded reproduction (inter-capitalist competition as an external coercive law) persist despite the oligopolistic / monopolistic concentration, and capitalists keep promoting the demand for superfluous and / or unnecessary goods or they produce goods (for example household appliances) with planned obsolescence: a device that used to last 20 years is now programmed to last five. The same goes for cars.

This frantic production of superfluous and / or unnecessary items requires an enormous consumption of energy and raw materials that must be extracted and processed or reconverted generating a gigantic accumulation of waste with the consequent environmental pollution. Examples are mobile phones and cars. Currently 130 million mobile phones are sold monthly worldwide or 1.560 million per year (179 million were sold in 2009 and 720 million in 2012). There are about 7.700 million active mobile phones and 720 million are thrown away annually. New models continually go on sale with real or presumed innovations, useful or not, that people buy at a rampant pace.⁹

In 2017, 93 million cars were manufactured and around one billion circulate around the world with everything that this entails in terms of energy and raw materials used for their production, in terms of environmental pollution by gas emissions as well as by the cars declared obsolete and scrapped, etc. In France alone, 1,5 million vehicles are scrapped annually that generate many tons of waste (liquids and solids) considered environmentally harmful.¹⁰

II. But in the current capitalist system everything is interconnected. **The competition for access to natural resources often results in aggressions against countries that own them and the promotion of civil wars.** The prestigious English medical journal *The Lancet*, in its January 2006 issue, reported that ten years of civil war in the Democratic Republic of Congo cost between 3,5 and 4,5 million deaths. That is, the greatest humanitarian catastrophe after World War II.

Everyone acknowledges that this tragedy is based on the appropriation of strategic minerals that are abundant in the Congo: diamonds, gold, Colombian-tantalum (coltan), cobalt, etc. It is estimated that the DRC owns 80 percent of the existing coltan reserves. Coltan, due to its particular properties, is used in the electronics industry, particularly in the production of mobile phones.¹¹ Aggressions and civil wars that take place when local governments do not willingly accept—with complete disregard for the ecosystem and the health of the population—the large mining companies (for example Barrick Gold) that pollute the environment, surface waters and water beds with highly toxic components such as arsenic and cyanide.¹²

Another important source of environmental pollution is the exploitation of shale gas by applying fracking, to compensate for the energy deficit and the expected depletion of conventional hydrocarbon deposits. Fracking — banned in some countries— includes the use of highly toxic chemicals. The result is the uncontrolled discharge of a portion of the gas and toxic products in drinking water and the environment in general, with serious consequences for

⁸ See: *L'écologie de la consommation*, John Bellamy Foster, Brett Clark et Richard York. Dans *Ecologie & politique* 2011/3 (N° 43), pages 107 à 130. In English : *The ecology of consumption*, <https://www.resilience.org/stories/2010-10-27/ecology-consumption-excerpts/>

⁹ See: <https://www.planetoscope.com/electronique/728-ventes-mondiales-de-smartphones.html>

¹⁰ See: <https://www.notre-planete.info/ecologie/transport/placeauto.php> and <https://www.planetoscope.com/automobile/76-production-mondiale-de-voitures.html> and <https://www.planetoscope.com/automobile/87-recyclage-de-voitures-hors-d-usage-en-france-vhu-.html>

¹¹ See: <https://noalamina.org/preguntas-frecuentes/mineras/item/1806-congo-mineras-celulares-guerra-y-muerte>

¹² See to this respect a news article in the Spanish daily *El País* of 19 June 2019: *El precio del oro que llega a nuestros móviles-* https://elpais.com/sociedad/2019/06/17/actualidad/1560782537_744292.html#?ref=rss&format=simple&link=link. The article makes reference in particular to the environmental, living and working conditions at the North Mara gold mine in Tanzania.

human and animal health. In many places, companies keep in secret the kind of toxic chemicals they use while governments do not force them to disclose them.¹³

Many workers in various parts of the world suffer the consequences of the violation of the rules on safety and hygiene at the workplace. This includes the use of highly polluting products and materials, without the necessary safety standards being taken. This certainly includes nuclear power plants.¹⁴

In the cycle of expanded reproduction inherent to capitalism, weapons and their use in wars play a disastrous and crucial role in the ecological disaster. The main producers and sellers of weapons (a gigantic industry that produces huge profits and partially halts unemployment) are the great powers and in particular the permanent members of the Security Council. And the forced "consumers" are the innumerable victims in the wars undertaken directly by these great powers or by their intermediaries. **An aerial bombardment causes more ecological damage in an instant than several years of pesticide use.**¹⁵

III. John Bellamy Foster in his book Marx Ecologist conducts an in-depth study of Marx's ideas around the concept of the metabolic rift that Marx focused on the (antagonistic) city / countryside relationship, within each country and between industrialised and agro-exporting countries.¹⁶ Foster associates it with the installation of capitalist's forms of production in the countryside, from the progressive diffusion of the enclosures, particularly in the 16th and 17th centuries, up to the mechanisation of agricultural tasks and the massive use of pesticides and chemical fertilisers with a view to intensive cultivation, with the consequent depopulation of the countryside and the urban population explosion.

The metabolic rift occurs because, with the development of industries and the rapid growth of the urban population, demand for agricultural products (food for the urban population and raw materials for the industry) grows vertically. The fulfilment of this demand triggers the depletion of nutrients from agricultural lands, which turn into polluting urban waste in urban regions and are not returned into agricultural lands. As Marx already pointed out, relative to the pollution of the city of London in Volume III of Capital (Utilisation Of The Excretions Of Production): *By the former we mean the waste of industry and agriculture, slid by the latter partly the excretions produced by the natural exchange of matter in the human body and partly the form of objects that remains after their consumption. In the chemical industry, for instance, excretions of production are such by-products as are wasted in production on a smaller scale; iron filings accumulating in the manufacture of machinery and returning into the production of iron as raw material, etc. Excretions of consumption are the natural waste matter discharged by the human body, remains of clothing in the form of rags, etc. Excretions of consumption are of the greatest importance for agriculture. So far as their utilisation is concerned, there is an enormous waste of them in the capitalist economy. In London, for instance, they find no better use for the excretion of four and a half million human beings than to contaminate the Thames with it at heavy expense.* This process that was

¹³ See: Qué es el fracking y por qué genera tantas protestas. Alejandra Martins. BBC Mundo https://www.bbc.com/mundo/noticias/2013/10/131017_ciencia_especial_fracking_abc_am; El gas de esquisto -'fracking'-: La gran estafa. Fermín Gongeta <https://eh.lahaine.org/el-gas-de-esquisto-el>

¹⁴ See: Annie Thébaud-Mony : L'industrie nucléaire : sous-traitance et servitude, Inserm & EDK, 2000 y Travailler peut nuire gravement à votre santé. Sous-traitance des risques, mise en danger d'autrui, atteintes à la dignité, violences physiques et morales, cancers professionnels. La Découverte, coll. « La Découverte/Poche », 2008.

¹⁵ See: Las guerras como negocio. Alejandro Teitelbaum - 13/03/2018- <https://www.alainet.org/es/articulo/191570> y La destrucción creativa. Guerras y ciclones son una tragedia para los pobres pero una bendición para el gran capital. Alejandro Teitelbaum <http://www.rebellion.org/noticia.php?id=20755>. See as well: Gran fracaso de la ONU en protección a civiles en los conflictos <http://www.ipsnoticias.net/2019/05/gran-fracaso-la-onu-proteccion-civiles-los-conflictos/>.

On the highly lethal and long-term contaminating effects of the use of depleted uranium in the production of ammunition and armaments and their use in wars may be seen in: Seminario internacional sobre uranio empobrecido, Gijón, 26 y 27 de noviembre de 2000 - https://www.nodo50.org/casca/uranio/gijon_declaracion.html

¹⁶ An approach similar to Foster's can be found in the book by Henri Peña Ruiz: *Karl Marx penseur de l'écologie*. Éditions du Seuil, Paris, May 2018.

limited to the domestic economy crossed borders, and the metabolic rift besides occurring within each country began to materialise between both large industrial countries and peripheral agricultural countries alike.¹⁷

A current example of the international metabolic rift: Argentina only replenishes 37 percent of soil nutrients. In each ship of 40 thousand tons of soybean grain exported, approximately 4.000 nutrients are lost. In the view of specialists, it is the "hidden cost" of Argentine agriculture. A study by INTA Casilda –Santa Fe– assured that thousands of tons of nutrients from Argentine soil are lost for every freighter that carries soy abroad; those nutrients, moreover, are not replaced. For Fernando Martínez, head of INTA in that location, "with every 40 thousand tons of soybeans, up to 8.700 fertilisers are exported, of which only 37 percent are replenished." The specialist Graciela Cordone, also from INTA Casilda, explained that 3.576 tons of nutrients are exported on a ship loaded with 40.000 tons of soybeans. If the load is wheat, the nutrients are counted by 1.176 tons and by 966 in the case of corn. Experts agree that the 3.576 tons of nutrients extracted - nitrogen, phosphorus, sulphur, potassium and magnesium - equate to 8.735 tons of fertilisers - urea, simple superphosphate, potassium chloride and magnesium sulphate. A ton of fertiliser has an average cost of about \$450, which would generate a financial loss of at least \$3 million per ship. Graciela Cordone graphed the loss: *We would need 300 trucks to load the fertilisers that contain the nutrients that are exported on each ship: only one of every three units of nutrients is replenished.*¹⁸

Marx had already made reference to the imperialist exploitation of soil nutrients from entire countries - derived from the metabolic rift between humans and the earth. *England*, he wrote in *Capital*, *indirectly exports the soil of Ireland without giving its cultivators even the means to replace its components.*¹⁹ When the Irish soil was depleted and the soil began to run out in England, the latter began to import guano from Peru to use as fertiliser.

Clark and Foster write: *The 19th-century guano/nitrates trade illustrates the emergence of a global metabolic rift, as guano and nitrates were transferred from Peru and Chile to enrich the soils of Britain and other imperial countries.*²⁰ This "ecological imperialism," as Clark and Foster call it, is completed by the massive export of toxic wastes and the relocation of polluting industries from the most industrialised countries to the most vulnerable periphery.²¹

IV. In all its activities, both material and intellectual, the human being consumes energy. It must, then, produce energy and in most cases distribute it and, if possible, store it. World energy consumption is increasing rapidly, albeit there are billions of people who live without electricity or who have major supply difficulties. Currently,

¹⁷ See: Brett Clark and John Bellamy Foster: *Ecological Imperialism and the Global Metabolic Rift — Unequal Exchange and the Guano/Nitrates Trade*. See also: The current crisis of the right to development, Alejandro Teitelbaum, Universidad de Deusto, Bilbao, Spain, 2000. Chapter 8: Preservation of the environment (<http://www.deusto-publicaciones.es/deusto/pdfs/cuadernosdcho/cuadernosdcho11.pdf>). This Chapter 8 describes the global devastation of peripheral countries with enormous eco-environmental consequences: huge rates of deforestation to export timber and / or to supplant trees for export crops. Or because of livestock to export meat (the "hamburger connection"); with the consequent climate change that has generated huge regions punished by a permanent drought. It should also be added that agro-industry that uses heavy machinery and agrochemicals (fertilisers and pesticides) cause changes in the soil structure (loss of its natural porosity), droughts or floods (former cultivated areas converted into lagoons), with the result of a significant decrease in cultivated area worldwide, except in Europe. It can be read in the FAO Soil Bulletin - 79 - 2005, Chapter I, Introduction, p. 1: "As populations have risen this arable land and permanent crops area per head has been falling, except in the case of Europe" <http://www.fao.org/3/y4690e/y4690e00.htm>. It should be noted that FAO and the United Nations Special Rapporteur for the Right to Food, Olivier De Schutter, warned a few years ago about the purchase of land in poor countries by financial groups and transnational corporations and said it could be extremely dangerous for food safety. They said that since 2006, between 15 and 20 million hectares of agricultural land have been subject to such transactions. FAO, in a report published on May 29, 2009, estimated that this situation could lead poor countries to be "dispossessed or [to] be denied access to land, water and other resources."

¹⁸ See: <http://intainforma.inta.gov.ar/?p=12116>

¹⁹ See: *Capital*, Chapter XXV The general law of capitalist accumulation). (Quoted in the article by John Bellamy Foster published in *Le Monde Diplomatique* June 2018: Karl Marx et l'exploitation de la nature (https://www.monde-diplomatique.fr/2018/06/BELLAMY_FOSTER/58734 and in *Marx Écologiste*, by the same author, Ediciones Amsterdam, Paris 2011.)

²⁰ See: Brett Clark and John Bellamy Foster: *Ecological Imperialism and the Global Metabolic Rift — Unequal Exchange and the Guano/Nitrates Trade*.

²¹ Mr. Larry Summers, who was Secretary of the Treasury of President Clinton, acquired some notoriety when being chief economist of the World Bank, in an internal memorandum he said that the Bank should stimulate the export of polluting industries to the Third World and added that unloading toxic waste in the lowest-income countries was an impeccable economic logic, because the life of a third-world inhabitant, in terms of life expectancy and per capita income, is worth much less than that of an inhabitant of a developed country (*The Economist*, February 15/21, 1992).

80 percent of global energy needs are covered by non-renewable fossil fuels and are on their way of being depleted: oil, coal and natural gas, the main sources of environmental pollution in the extraction and consumption process. The other 20 percent comes from nuclear fission (nuclear power plants), hydraulic force, biomass and in minimal proportions of wind and solar radiation.

The direct polluting effects of renewable (and inexhaustible) sources, in particular solar and wind power are zero. The latter, which is accessible throughout the planet individually and collectively and are obviously free, are the least used; in great contrast with fossil fuels that must be extracted and permanently transported to power the facilities that transform them into electrical energy; an extraction and transportation that has a high environmental cost and that only benefits the large companies that control these industries and services.

V. In conclusion: the capitalist system and a healthy environment are incompatible. That is why Foster, Clark and York are right when in the final part of their article *The Ecology of Consumption* they write: *...A genuine ecology of consumption—the creation of a new system of sustainable needs-generation and satisfaction—is only possible as part of a new ecology of production, which requires for its emergence the tearing asunder of the capitalist system...*²²

Unfortunately, this approach is a minority in the movements and literature of environmentalists, including the so-called ecosocialists. This intrinsic relationship between the current capitalist system and environmental degradation explains the repeated failure in the materialisation of international agreements supposedly conceived to slow climate change, to limit the use of pollutants and genetically modified products, celebrated by governments that act with sheer hypocrisy and are nothing more than mere agents and faithful servants of the dominant system. The few and limited measures that are put into practice are primarily aimed at appeasing the common citizenry (and holding it responsible) and are akin to aspirins intended to cure advanced environmental cancer.²³ The deepening environmental disaster increasingly affects not just the popular classes but also other social classes, and the struggle to take ownership—replacing the ruling elites—of the decision-making power exercised democratically to adopt the appropriate measures to curb it, may be a bridge uniting all of them. **As long as those majorities do not understand that the ecological catastrophe is inherent to capitalism, environmentalism will not have a solid foundation.**

To reach such understanding there is a long and difficult road to cover that includes deepening the analysis of this problem and pointing out the shortcomings of cultural and ideologically dominant environmentalism. Foster, in *Marx Écologiste*, shows on the one hand the contemporaneity of Marx's thought in this matter, and on the other, he criticises the current trends in vogue in environmental movements.

²² See: John Bellamy Foster "[The Ecology of Consumption: A Critique of Economic Malthusianism](#)," [PDE], (coauthored with Brett Clark, Foster listed first), *Polygraph: An International Journal of Culture and Politics*, no. 22 (2010), pp. 113-32.

²³ Except for Trump, Bolsonaro and some others who are declared and practicing anti-ecologists, almost all rulers declare themselves to be more or less "green" and try to distract public opinion and rescue some militants and environmental movements. Consistent with the governments, the experts of the Intergovernmental Panel on Climate Change (IPCC), in its periodic reports, do not fail to point out the obvious devastating effects of climate change, yet they carefully refrain from pointing at the true causes. For example, in their last report of August 2019, the IPCC—invites people to change their eating habits, forgetting that international consortia in Africa forced people to change them (see page 2 of the Annex) and that, in the world in general, large transnational corporations dictate to people not only what they should think but what they should eat. Large corporations are interested in neurobiology and finance studies on decision making to apply them to neuromarketing, which consists from studying why people buy one thing and not another, to developing ways of mental manipulation through advertising to guide people to buy certain products and not others (see footnote 5). On how the IPCC works you can see a document from the French Ministry of Ecological and Solidarity Transition (Comprendre GIEC - <https://www.ecologique-solaire.gouv.fr/comprendre-giec>) and a note from the newspaper *Le Monde* of 8 August 2019 that includes a critical article (https://www.lemonde.fr/planete/article/2019/08/08/la-securite-alimentaire-au-defi-du-rechauffement-le-rapport-du-giec-adopte_5497560_3244.html). In summary, the GIEC does not carry out research work on climate change, but collects third-party work and synthesises the points of consensus between them. From there, it proposes strategies to slow climate change. But the decisions regarding the strategies to be proposed are taken by governmental representatives within the GIEC; that is to say, that the final proposals of the IPCC are the result of the intergovernmental consensus where interests that are in complete contradiction with the claimed objective of cleaning up the environment prevail.

ANNEX

The degradation of the environment

(From the book *The Armour of Capitalism. The Power of Transnational Corporations in the Contemporary World*. Editorial Icaria. Spain, 2010).

... One of the most dramatic manifestations of environmental degradation is climate change, the result of a multitude of causes that interact with each other, some natural and others originated in human activity. The latter increasingly influences this change as a result of the irrationality of the dominant economic model based on the maximisation of profits for a handful of gigantic economic groups, which foster and promote a consumerist and wasteful culture in the sectors of the world population that have enough income to adopt it.²⁴

In 1974, the Latin American World Model was published; a report prepared by a group of Latin American sociologists and economists, with a critical and different approach from the report prepared by Dennis Meadows for the Club of Rome, which had been published in 1972 with the title of "The limits of growth." Alluding to this latest report, the Latin American World Model asserted that the ecological catastrophe foreseen in other models for a more or less distant future, was a current reality for a good part of humanity.²⁵

Indeed, for considerable time deforestation has been causing incalculable damage, polluting industries (many of them displaced from developed countries to Third World countries) have been poisoning the atmosphere, water and land and huge amounts of toxic waste have also been exported from industrialised countries to less advanced countries.²⁶ Deforestation is an important and concurrent cause of environmental degradation. Numerous examples can be given in addition to the well known case of the Amazon.

Hence, **in Central America, whereas forested areas covered 60 percent of the total land area in 1960, they now cover only 30 percent.** It is estimated that 350,000 hectares of forests per year are currently lost in that region, which means an annual deforestation rate of 1,5 percent, one of the highest in the world, with serious ecological consequences, such as a shortage of water for irrigation and for the consumption of urban populations. This is the consequence of a process called modernisation on the one hand and survival strategies on the other. Modernisation has consisted of indiscriminate logging to sell timber, extend grazing land to produce meat for export (the so-called "hamburger connection") to produce bananas, coffee and cotton also destined for export, mining, etc.²⁷

The social consequences have been the displacement of poor peasants and indigenous peoples from their lands who, by occupying new lands further away, practice survival strategies, such as cutting down trees to use wood as fuel and to sell it. When poor peasants and indigenous people want to resist dispossession of their lands, repression and killings do not wait. **The World Bank and the Inter-American Development Bank fund these "modernisation" processes, the result of which is the concentration of land ownership in a few hands, the enrichment of local elites including military chiefs,**

²⁴ On the subject of this paragraph you can see *The Greening of Business in Developing Countries*, editor Peter Utting, joint edition UNRISD and Zed Books, 2002. The relationship between the dominant economic model and environmental problems is very well described, with lots of data and a special contribution from J.K. Galbraith (p. 42 of the English version), in the 1998 UNDP World Human Development Report.

²⁵ Amílcar Herrera, *Un monde pour tous, Le modèle mondial Latino-Américain*, Presses Universitaires de France, 1977.

²⁶ See the reports of the special rapporteur, Mrs. Fatma Zohra Ouachi-Vesely, on The harmful effects of the illicit transfer and dumping of toxic and dangerous products and wastes for human rights, presented to the United Nations Commission on Human Rights in March 2000 (E / CN.4 / 2000/50) and that of 2002 (E / CN 4/2002/61) where it refers to the responsibility of transnational corporations in such illegal activities.

²⁷ Peter Utting, *The Social Origins and Impact of Deforestation in Central America*, UNRISD, Discussion paper NE 24, 1991

huge benefits for transnational corporations and the impoverishment and degradation of the living conditions of large sectors of the population, in a framework of accelerated deterioration of the environment.

The situation in Africa has not been and is not very different, where famine can be attributed to meteorological conditions and wars at first sight, but **a more in-depth analysis highlights the dire role played by European colonisation, which devastated vast areas of forests to appropriate the wood and encouraged export crops such as coffee, cocoa and peanuts; the latter with particularly negative effects for the conservation of soil moisture.** Subsistence crops were marginalised and the agricultural habits of African peoples were modified, such as crop displacement, rotation and accumulation of reserves, all of them suitable to face drought periods without famine. In Africa, forests were raised to provide exotic timber to the markets of the so-called civilised countries. Between 1930 and 1970 it is estimated that between 25 and 30 percent of the humid forests of Africa were destroyed. Especially in recent decades, this high rate of deforestation with catastrophic ecological consequences (drought and erosion) is largely due to the transformation of forests into farmland for export, in a desperate attempt to obtain foreign exchange to pay for the services of debt.²⁸

In Asia, the situation is no different. For example, Nepal owns its highly sought-after wood forests, yet also has the dismal privilege of exhibiting the highest deforestation rate in the world, four percent per year.²⁹ **Deforestation, in addition to the local consequences such as drought, erosion and temperature changes, can produce climatic effects in neighbouring or more remote regions as a result of different factors: change of direction of prevailing winds, transformation of wet atmospheric jet streams into dry jet streams, etc.**

The great concern raised by air pollution and the foreseeable effects of the greenhouse effect: significant climatic changes, transformation into deserts of entire regions currently covered with vegetation, increase in oceans' levels, etc., led to the signing in 1997 of the Kyoto Protocol. On December 11 of that year, the industrialised countries pledged in Kyoto to implement a set of measures to reduce greenhouse gases. Signatory governments agreed to reduce their pollutant emissions by 5,2 percent on average between 2008 and 2012, taking 1990 levels as the benchmark. The agreement entered into force on 16 February 2005, after Russia's ratification on 18 November 2004. With Russia's ratification, the requirement for the Kyoto Protocol to enter into force: the ratification by industrialised countries responsible for at least 55 percent of CO₂ emissions, was fulfilled.

Almost every country in the world ratified the Protocol, except the United States, which considers that submitting to it would be catastrophic for its economy. An advertising campaign costing \$13 million against the signing of the Protocol by the United States was financed and carried out by the Global Climate Coalition composed, among others, by Ford, General Motors, Mobil and Union Carbide.³⁰ On 5 March 2007, the French newspaper *Le Figaro*, echoing a story published in the *New York Times*, reported that the United States officially communicated, in early March 2007, to the United Nations Framework Convention on Climate Change (UNFCCC) —of which the United States is a party— that between 2002 and 2012, it would increase its emissions by 11 percent. That is, it would increase them at a rate practically equal to that of the previous decade (11,6 percent) instead of reducing it by 7 percent between 1990 and 2012, as it should have done if it had abided by the commitments made in the Kyoto Protocol. The United States, with 22,3 percent of the world's total, is the first greenhouse gases discharger (it was followed by China with 15,9 percent). **The Protocol introduced clauses authorising the main emitters of these gases to “buy” the right to pollute, financing**

²⁸ Barraclough and Krishna Guimire, *The social dynamics of deforestation in develo*

²⁹ Solon Barraclough y Krishna Ghimire, op. cit., pág. 28.

³⁰ See: Ann Doherty, *Les transnationales et leurs groupes de lobbying*, en *Empresas transnacionales y derechos humanos*, AAJ, CETIM y FICAT, Ginebra, julio 2000.

"clean" development projects in poor countries and to obtain "credits" to continue polluting in exchange for forest planting, that would absorb the polluting gases. This is referred to as the "carbon market."

The projects to "compensate" for the emissions are presented as if they were reducing global emissions but, in reality, any emission savings that may occur somewhere within this system, will be automatically compensated by additional emissions that occur in another part of the world. In other words, the greater the emissions reduced with "clean" projects, the more carbon credits granted in favour of polluters. The result is that, instead of reducing global emissions, the so-called carbon offset is countervailing them more or less at the same level if not increasing them. The important contribution to air pollution produced by the emanations of transportation vehicles such as cars, trucks and airplanes is frequently stressed, and the use of technical means to reduce these emanations is proposed. Yet, the fact that there is an excessive use of these means of transportation is hidden, because the dominant economic and social organisation is founded on profit. Indeed, there is an excessive use of private cars in the cities due in part to the lack of adequate public service, and of other means of transportation due to the irrationality of the productive system, which is scattered in various countries on its quest to meet the objective of lowering labour and raw materials costs. This fragmentation of production in various sites far from each other (raw materials from places far from the centres of production, the latter fragmented and also far from each other) results in the entire process of manufacturing a product, until it reaches the consumer, to have a high and disproportionate investment in transportation. This constitutes an aggravating factor in environmental pollution. The example of a yogurt is frequently cited—from its manufacturing process until reaching the consumer—as traveling hundreds or perhaps thousands of kilometres.

A [document of the European Union](#) does not say it directly but lets it show: *The removal of barriers to trade and cross-border travel has increased the volume of long-distance goods and passenger transport. The same phenomenon has been repeated after the enlargement of the EU in 2004 by significantly increasing transport, especially by road, between the new Member States and the rest of the Union. The constant growth of mobility places great pressure on transport systems. Congestion in roads and airports increases pollution, adding 6 percent to the estimated EU fuel consumption..* The polluting effects of wars: dissemination of toxic products, oil spills caused by the destruction of oil pipelines and fuel tanks, etc. are not mentioned as well, except by activists. **There is the false pretension, in the exclusive interest of large economic groups, that the problem of environmental pollution can be partially solved with biofuels, without modifying the root causes of it, whatsoever.**³¹

Numerous examples could be given of the relationship between the dominant social-economic system and environmental degradation. In paragraph 2, (section d) of this Chapter we have given the example of the use of toxic pesticides by transnational corporations in banana plantations in Central America, with serious consequences for the environment and for the health of workers. In paragraph 3 of Chapter VII, we refer to the Bhopal catastrophe, one of the greatest if not the greatest human tragedy in environmental pollution, caused by the deliberate negligence of Carbide Union. Several oil companies are accused of contaminating the waters and the environment where they operate, including Texaco in Ecuador,³² Oxi in Colombia, Shell in Nigeria, Repsol in Argentina and Bolivia, etc. The same reproach is made to mining companies in different parts of the world.³³

³¹ Despite the known harmful consequences of the production of biofuels on the price of food and its practically null effects against environmental pollution, the European Commission, the Council of Ministers and the Parliament (with the vote of the conservative-socialist majority) have approved resolutions regarding the promotion of the use of biofuels. Recently, voices have been raised among some MEPs calling for a review on biofuel policy.

³² In December 2008, the Court of Appeals for the Second Circuit in New York denied Chevron Texaco's request to review the unanimous ruling issued by a panel of three judges in October, which rejected the claim of the oil company to exempt itself from its liability for pollution. Chevron Texaco had tried to transfer responsibility for the damage, estimated at 27 billion dollars, to the government of Ecuador, trying to force it to accept binding arbitration to determine who should pay for the cleaning.

³³ In June 2008, the Federal Chamber of Tucumán, Argentina, resolved to prosecute the vice president of transnational corporation La Alumbra, for the alleged crime of "malicious contamination." La Alumbra extracts gold and copper (among other minerals) that are exported to different countries of the world.

The pollution of the seas and coasts caused by oil tankers owned by large or chartered oil companies deserves a separate paragraph, when they suffer breakdowns and / or shipwrecks or when they proceed to clean their tanks at sea. Periodically the marine flora and fauna and the coasts are contaminated due to black tides coming from oil tankers. Among the most notable cases are: Torrey Canyon in 1967, Olympic Bravery in 1976, Boehlen in 1976, Amoco Cádiz in 1978, Tanio in 1980, Exxon Valdez in 1989,³⁴ Erika in 1999 and Prestige in 2002. This pollution of the seas results also in the accidental eruption of oil wells and offshore platforms (Ekofisk in 1977, Ixtoc in 1979 and Piper Alpha in 1982) and clandestine tanker cleaning operations near the coasts.³⁵ Maritime transport of other hazardous materials can also cause the pollution of the seas. This pollution of seas and coasts is the result of a business strategy consisting of using old ships in poor condition and, to avoid responsibility in the event of an accident (and also to avoid labour laws) the ship flies the flag of convenience, screen owner companies are created, etc. (more than half of the existing ships are registered in a country that is not that of the owner's headquarters or domicile). The Prestige is an example in that sense: it was one of those ships (40 percent of those sailing the seas) that do not respect the current regulations. It had been built 26 years ago in Japan, owned by a company domiciled in Liberia, was registered in the Bahamas, armed by the Swiss branch of a Russian conglomerate, operated by a Greek company and with a crew composed of Greeks, Romanians and Filipinos working in deplorable conditions. The ship had been declared fit to navigate by a US certification association and towed by a Chinese ship. The Prestige is an illustration of the subterfuges that transnational societies resort to avoid their responsibilities. We develop the issue of such responsibility in Chapter VII. There is an intergovernmental body to compensate victims of oil pollution, FIPOL, financed by oil tankers from its 85 Member States. It is a system that limits the liability of ship owners (85 million euros for the most important) and FIPOL compensation has a limit of 180 million euros, well below the amount of damage caused by large catastrophes, such as those caused by Erika or Prestige. In mid-2009 at a meeting of the Forum of the Major Economies (the G8 plus a group of the main emerging countries) it was agreed to reduce the average global warming by two degrees Celsius, but no percentages were set to cut emissions of polluting gases.

The new US administration [Obama], contrary to the previous one, presents itself as favourable to environmental protection measures. But the whole issue is ambiguous and disagreements persist between the great powers and emerging countries on how to distribute the commitments, as will probably be seen again at the Copenhagen Summit in December 2009. **The only thing that is clear is that the large consortiums have discovered the vein of ecology to run business in the real economy by investing, for example, in renewable energies (with environmental and sometimes also social antithetical effects, as is clearly the case of biofuels** (see footnote 33) and developing the new green marketing to increase sales: now everything is “green”, from electric razors to automobiles (see Chapter VI, paragraph 2 a). And the invoice, as is customary, will be paid by the consumer. For example, in France the government intends to set a rate for carbon emissions that individuals will pay to use their car, kitchen or turn on the heating. On the other hand, the European Council agreed in December 2008 that the quotas for the right to pollute the industries will be free until 2013, the year in which they will start paying 20 percent of their right to pollute, to reach 70 percent in 2020 and at 100 percent only in 2027.

³⁴ In December 2006, the San Francisco Court of Appeals reduced the amount of punitive damages that Exxon must pay victims for the ecological catastrophe of 1989 from 4,5 to 2,5 billion dollars. The Court estimated that there were several extenuating circumstances in favour of the company, despite the fact that in the judgment it referred to “the irresponsible behaviour of the company that placed a recidivist alcoholic in command of the supertanker. On the other hand, a person in charge of the US environmental organisation PIRG declared that it was “scandalous that the most profitable oil company in the world can obtain a reduction of punitive damages”. Exxon made in the first two months of 2006 a net profit of \$ 29.2 billion over a business amount of 287.6 billion (AFP, 12/22/2006).

³⁵ The cases listed are among those with the most public dissemination. Actually, the number of such accidents is much higher. A fairly complete list can be found at http://www.cetmar.org/documentacion/mareas_negras_catastrofes.htm

Useful links:

- jussemper.org
- What are We Saying When We Talk About Sustainability?
- True Sustainability and Degrowth in the Citizens Imaginary
- The Degrowth Alternative
- Capitals, Technologies and the Realms of Life. The Dispossession of the Four Elements
- The Long Ecological Revolution
- The Anthropocene Crisis

❖ **About Jus Semper:** The Jus Semper Global Alliance aims to contribute to achieving a sustainable ethos of social justice in the world, where all communities live in truly democratic environments that provide full enjoyment of human rights and sustainable living standards in accordance with human dignity. To accomplish this, it contributes to the liberalisation of the democratic institutions of society that have been captured by the owners of the market. With that purpose, it is devoted to research and analysis to provoke the awareness and critical thinking to generate ideas for a transformative vision to materialise the truly democratic and sustainable paradigm of People and Planet and NOT of the market.

❖ **About the author:** Alejandro Teitelbaum has been a Fellow Associate with Jus Semper since 2010. He worked for many years on the issue of human rights in the realm of global corporations and other business enterprises. As the former Permanent Representative, successively from 1985 to 2006, to the United Nations Office in Geneva, for the International Federation of Human Rights and the American Association of Jurists, he spent time toiling with the bureaucracies of the UN and member states in pursuit of an international legal framework that would harness the business activity so that it would stop violating a wide array of human rights in its sphere of influence, as is customarily the case today. As such, he witnessed how, time and time again, the bureaucracies succumbed to the will of the leading economic powers, that were adamant at maintaining the preeminence of corporate interests over their responsibility for their infringement on human rights. Alejandro Teitelbaum is a Lawyer, Universidad de Buenos Aires, and a Postgraduate in International Economic Relations at the Institute of Economic and Social Development Studies, Université Paris I.

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