Asymmetric frontiers, environmental insecurity and migrations Introduction: the problem and some of its symptoms

Article · August 2017

CITATIONS
0

READS
88

2 authors:

Freddy Cante

86 PUBLICATIONS **137** CITATIONS

SEE PROFILE

Nathalie Mezza-Garcia

The University of Warwick

12 PUBLICATIONS **31** CITATIONS

SEE PROFILE

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

Asymmetric frontiers, environmental insecurity and migrations

Freddy Cante[1] e Nathalie Mezza-García[2]

Resumen

En nuestro planeta existen dos disímiles pero interconectados mundos, a saber: naciones desarrolladas y selectivamente protegidas por unas imponentes fronteras para impedir la entrada de flujos nocivos, incluyendo migrantes pobres y epidemias, y los países subdesarrollados que tienen débiles linderos para impedir las entradas nocivas. Un principal efecto de las fronteras asimétricas intra e inter-estatales es que las zonas rurales y los países periféricos están destinados a ser despensas, y oferentes de recursos naturales renovables y no-renovables y, además, depósitos para poner peligrosos desechos y contaminantes. Por tanto, la mayoría de la población pobre de estas zonas está confinada a vivir en espacios de creciente inseguridad ecológica. Este tipo de globalización implica transferencia de inseguridad ambiental desde regiones opulentas hacia zonas marginadas, y esta situación exacerba el proceso de entropía natural de todo el planeta, debido a los crecientes niveles de agotamiento y contaminación de recursos naturales en nuestro finito y vulnerable mundo.

Palabras clave: Fronteras, Migraciones, Refugiados, Entropía, Inseguridad Ecológica.

Abstract

In our planet exist two dissimilar but connected worlds, namely: Developed nations being mostly selectively protected with strong frontiers mainly against negative fluxes, including poor migrants and epidemics, and underdeveloped nations which have weak barriers against dangerous unilateral fluxes. A main effect of the existence of asymmetric intrastate and interstate frontiers is that countryside and peripheral countries are destined to be stores and suppliers of natural renewable and non-renewable resources, and deposits of dangerous wastes and contaminants. Therefore, most of its poor population is confined in settings of growing ecological insecurity. This kind of globalization implies transference of environmental insecurity from opulent regions to peripheral zones, and this situation exacerbates the natural entropic process of the entire planet, due the growing levels of depletion and contamination of natural resources in a finite and vulnerable earth.

Key words: Frontiers, Migrations, Refugees, Entropy, Environmental Insecurity.

[1] PhD in Economic Science, Universidad Nacional de Colombia. Full Professor, Faculty of Political Science, Universidad del Rosario, Bogotá (Colombia).
[2] PhD Student, Centre for Interdisciplinary Methodologies, University of Warwick; and Political Scientist, Universidad del Rosario. Recebido para Publicação em 31/01/2017. Aprovado para Publicação em 16/07/2017.

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

Introduction: the problem and some of its symptoms

The archetype of a sadist personality (for example the tyrannical Roland who exercise a brutal domination over the poor and virtuous Justine, in the famous novel *Justine, or the Misfortunes of Virtue*), is that he is an insatiably seeker of pleasure and success without restrictions. The sadist individual establishes and asymmetric and violent relationship whit his victim: he takes everything without compensation or exchange, he claims only submission from his prey, and a drop of his malefic pleasure implies barrels of blood emanated from the wounded bodies of his victims. The exacerbated inequality in our world and the marked contrast between economically developed and peaceful regions (that consume high levels of energy) and underdeveloped, impoverished and turbulent regions (that exports renewable and non-renewable natural resources) may be understood like the economic version of the Sade's story. The sacred commandments of radical liberalism (neoliberalism or pure capitalism) such as liberalization, deregulation of markets, and promotion of foreign investment without restrictions, imposed over underdeveloped regions, are compatible with the kind of licentiousness anxiously desired by sadist heroes.

Environmental or ecological insecurity leads to even more chaotic climate changes, increases the contamination and destruction of natural ecosystems and produces a big effect to human beings: the curtailment or a very restrictive access to natural sources of matter and energy -including fresh and clean water, pure air, and adequate food-, which implies dangerous effects in the lives of societies such as more poverty, hunger, illness and conflicts for survival. As a consequence, an impact is produced on the deterioration of other forms security, namely human, social, economic, and legal kinds.

If human beings have moderate and controlled access to sufficient sources of matter and energy –problems of the commons (Hardin, 1968)- in order to satisfy individual and social necessities, then they can, possibly, attain at least appropriate levels of securities. If some individuals or collectivities have excessive and unrestricted access to natural renewable and non-renewable resources, then they can generate dangerous habits: artificial and capricious desires, expensive patterns of consumption and, additionally, they want and wish aggressive defense and expensive spending in military security (fences, walls, frontiers, armies, policemen, spies, lawyers, etc.) in order to protect their properties and privileges. This creates an effect of *the rich get richer,* like it has been seen with other cases of preferential attachment in the science of complexity. Moreover, the privileged and opulent individuals and collectivities contribute to the environmental insecurity of excluded and marginalized people that live in the poorest and turbulent regions of the world. The opulent cities and societies are producers of very high levels of spending of matter and energy, and a gigantic production of dangerous wastes.

Two ecological indicators, Footprint and Bio-capacity, help us answer a basic question: how much do people demand from biologically productive surfaces (Ecological Footprint) compared to how much can the planet (or a region's productive surface) regenerate on those

surfaces (bio-capacity)? From this perspective, the Ecological Footprint is the area of land and water it takes for a human population to generate the renewable resources it consumes and to absorb the corresponding waste it generates, using prevailing technology. In other words, it measures the "quantity of nature" that we use and compares it with how much "nature" we have …" (Network Global Footprint, 2015). Today humanity uses the equivalent of 1.5 planets to provide the resources we use and absorb our waste. This means it now takes the Earth one year and six months to regenerate what we use in a year …If everyone lived the lifestyle of the average American we would need 5 planets…" Indeed, there is a lot of irrecoverable dangers and fluxes of non-renewable natural resources that this optimist indicator cannot register. United States, European Union, China and India have a very high ecological footprint.

Sadly, in this supposedly globalized and liberal world exit, foot-voting (or freedom of mobility) is prohibited to a big majority of human beings. Today international interstate frontiers and domestic frontiers are sophisticated devices designed to maintain asymmetric relationships. Opulent centers (including big cities and mega-cities) are protected with strong and impermeable fences (high barriers to stop the entry of poor migrants) that, moreover, have the power to import cheaper energies and materials from countryside and periphery, and to exports weapons and wastes to peripheral regions.

The most opulent urban areas and powerful nations design and construct hermetic frontiers and high barriers in order to stop the entry of poor migrants and dangerous economic fluxes, but they are exporters of noxious wastes and weapons to peripheral regions.

According to a recent report by The Economist: "Europe will soon have more physical barriers on its national borders than it did during the Cold War. The ongoing refugee crisis, combined with Ukraine's conflict with Russia, saw governments plan and construct border walls and security fences across the continent in 2015… Since the fall of the Berlin Wall, over 40 countries around the world have built fences against more than 60 of their neighbors. The majority have cited security concerns and the prevention of illegal migration as justifications. More than 30 of those decisions were made following 9/11… In the Middle East, the wars in Iraq, Afghanistan and Syria as well as the associated wave of refugees have prompted many countries to close borders. It has even been a motive behind the discussions of the United Kingdom leaving the European Union. When it completes its border-wall with Jordan, Israel will have surrounded itself entirely. In Asia, too, walls and fences have proliferated, generally designed to prevent illicit movement of people and goods rather than to seal disputed borders, though Kashmir's line of control at India and Pakistan's disputed northern boundary remains a highly-militarized example…" (The-Economist, 2016)

In relation to the attempts of exit from impoverished, violent and turbulent regions to most opulent and peaceful zones, (National-Geographic, 2015) accounts for an elaborated map showing the main migrations routes in the world. The authors of the report affirm that "the desperate men, women, and children flooding into Europe from the Middle East and Africa are not the only people moving along ever-shifting and dangerous migration routes. Last year saw the highest levels of global forced displacement on record—59.5 million individuals left their

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

homes in 2014 due to "persecution, conflict, generalized violence, or human rights violations" according to the United Nations. That is 8.3 million more people than the year before. (National Geographic, 2015).

Due the aforementioned problem of environmental insecurity today exists a growing flux of exit due climate change. The forced internal and international migrations due climate change are explained in the following terms by (Hummitzsch, 2015): climate change and its consequences has become a fixture for many political agenda. Controversial though discussion about climate change may be, there is international and cross-party political consensus that global warming is going to be one of the greatest political, economic and social challenges for the coming years.

In 2002 the UNHCR estimated the number of people forced into migration as a result of flooding, famine and other environmental factors at 24.2 million and later the number of individuals internally displaced as a result of natural catastrophes alone at 25 million The German Advisory Council on Global Change (WBGU) assumes that 10-25 % of all global migratory movements are the result of climate change and its consequences; that would be the equivalent today of an absolute number of 25-60 million migrants. The United Nations University – Institute for Environment and Human Security, or UNU-EHS, in Bonn estimated the number of environmental migrants up to 2010 to be at least 50 million. The Intergovernmental Panel on Climate Change anticipates a total of up to 150 million migrants as a result of climate change by 2050 The United Kingdom's Stern Review bases its estimate on a review of a large number of studies and forecasts and concludes that there are likely to be 200 million environmental migrants by 2050. The figures of Oxford professor Norman Myers are also widespread; he anticipates more than 200 million environmental migrants by 2050.

The peace and security in our planet are mirages because even the most peaceful and secure countries and regions have a dark side of turbulence (Cante, Fredy and Quehl, Hartmut (editors), 2015). The Global Peace Index comprises three main domains, namely: Ongoing domestic and international conflict (indicates the number and intensity of ongoing civil and international wars); societal safety and security (indicates the levels of safety and security within a country, such as the perception of criminality in society, the level of political instability and the rate of homicides and violent crimes) and, militarization (indicates a nation's military capacity, both in terms of the economic resources committed to the military and support for multilateral operations). This index shows the next global photography of the last year, where is highlighted the noisy turbulence in Middle-East, North Africa, Latin America and Russia, thus:

> "…The most substantial change in the index was recorded for the Middle East and North Africa (MENA) — where several countries suffered from an upsurge in violence related to sectarian strife and civil conflicts, as well as a rise in actions by Islamist extremist groups. It was followed by South America, where peacefulness was most affected in some countries by a rise in the perceptions of criminality and in popular protests. MENA now ranks as the most violent region, overtaking South

> Asia (which includes Afghanistan) from last year's GPI. Yet again, Europe maintained its position as the most peaceful region in the world, supported by a lack of domestic and external conflicts … Although there were no new wars between countries, tense relationships between the two Koreas, concerns over China's growing military assertiveness in the Asia-Pacific region, the potential further expansion of the Middle East conflicts across borders, and the possibility that conflict between Russia and the Ukraine escalates into all out military confrontation suggest these may become hotspots for international conflict in the future. In the case of deaths from internal conflict, the scores for most regions deteriorated (the exceptions being South America and Central America and the Caribbean). The individual countries with the biggest score erosion for these indicators were Ukraine and Central African Republic, owing to ongoing and worsening civil wars. For the indicator of internal conflicts fought, internal conflict escalated most in the Middle East and North Africa. The situation improved in South America and South Asia ..." (Peace, 2015, pág. 8).

An explanation of the sadistic insensibility of opulent regions

Following and amplifying the ideas of (Hirschman, 1970) human societies, States and diverse organizations —and even the entire human kingdom— suffer a serious problem of latitude for deterioration, whereby they cannot anticipate possible dangers; they do not know important problems of actual insecurity; they do not feel or experience directly the dangers or dangerous consequences of their action. The following are the main characteristics of this problem:

i. Under any known economic, social, or political system, individuals or collectivities (firms, organizations, families and communities) are subject to an erroneous or dangerous behavior in a world of scarcity and ecological fragility: they are prone to incur in excessive levels of waste and spending (and growing production of ecological evils or dangerous garbage).

ii. An important reason for which human beings have failed to minimize the destruction and deterioration of natural environment is because, paradoxically, the most opulent individuals and collectivities don't suffer the effects of their dangerous conduct. Indeed, some individuals and societies are marked by the existence of a surplus above subsistence. The wide latitude that certain human societies have for the environmental deterioration is that they live in exclusive and privileged urban areas, and/or in opulent nations that shows high levels of economic productivity, which guarantees them security and comfort and boast of a supposedly control over the natural environment.

iii. Because of the surplus and the resulting latitude, any homeostatic controls that the most opulent individuals and collectivities might construct are bound to be rough. The opulent and happiest citizens of cities and privileged places of the planet do

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

not know or do not want to know about the dangerous consequences of their dangerous economy.

iv. Human beings and their business organizations, especially ones more driven towards extreme economic profits, tend to have an ambivalent attitude toward the ability to produce a surplus: they like surplus but they are fearful or averse of paying its price. They are not at rest when they can satisfy basic needs (a frugal and moderate stile of life) and they have a growing set of individual and social wishes basically insatiable. Indeed, in our complex world exist another ecosystems of factors: history, random facts, and interaction among millions of human beings.

The insurmountable natural bounds

According to (Boulding, 1966) sadly a majority of individuals (and the mainstream of economist) cannot understand that we live in an open ecosystem in a bounded bigger system that includes our sun. In a pure closed system, there are no inputs from outside and no outputs to the outside. In an open system there are open interactions with the environment and after metabolic processes, which conclude with internal inputs becoming outputs, which leads to a changing structure that, despite its dynamism, maintains over time. We can see this with biological organisms, the economy and certain types of complex machines. With this in mind it can safely be said that our planet is a semi-closed system: it has a superabundant flux of external solar energy and a bounded and decreasing stock of internal energetic resources, and the wastes, excrescences and contamination are deposited inside some places of the globe. Indeed, in the global arena and inside each country there is a division: the most opulent and privileged sectors take important and abundant inputs from its environment and deposit dangerous wastes in it; the marginal and impoverished zones are providers of matter and energy to opulent nations and cities, and deposits that receive dangerous flux of waste from the rest of the world.

Indeed, the exterior and incessant flux of solar energy is combined with the inner resources of the planet (land, water, minerals, plants, and animals) to obtain the natural production of other forms of energy and work. The non-renewable stocks of fossil fuels are the result of the solar radiation accumulated in gigantic corpses of animals and plants during hundreds of millions of years. According to Georgescu-Roegen: "…Passing to the terrestrial dowry, we find that, according to the best estimates, the initial dowry of fossil fuel amounted to only 215 Q. The outstanding recoverable reserves (known and probable) amount to about 200Q. These reserves, therefore, could produce only two weeks of sunlight on the globe…" (Georgescou-Roegen, 1975, pág. 370). The renewable resources are the outcome of photosynthesis (combination of flux of solar energy with plants growing in adequate conditions of soil and water), that guarantees the production of natural vegetal food to animals and human beings.

Land (understood like arable soils) and water (identified like fresh and clean water) are scarce and partially renewable resources of heterogeneous quality distributed very unequally in the world; moreover, this type of crucial resources is subject to high and growing levels of scarcity.

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

Fresh water is a very scarce resource: "… world's total water supply of about 332.5 million mi3 of water, over 96 percent is saline. Of total freshwater, over 68 percent is locked up in ice and glaciers. Another 30 percent of freshwater is in the ground. Rivers are the source of most of the fresh surface water people use, but they only constitute about 300 mi3 (1,250 km3), about 1/10,000th of one percent of total water" (USGS, 2015). Billions of human beings cannot drink clean water: "According to the WHO/UNICEF Joint Monitoring Program for Water Supply and Sanitation, at least 1.8 billion people world-wide are estimated to drink water that is fecally contaminated…" (UNWATER, 2014). Today the fresh water is unequally distributed in the planet: clearly the northern regions of the earth have important reservoirs of water, and partially some nations located at the north of South America and at the center of Africa, in the next link you can find the detailed figures and maps: (UNWATER, unwater.org, 2014)

The land useful for agriculture (that guarantees the production of food to humans and animals) is only a small part of the terrestrial soil. The global map about the percentage of arable land shows sharply the big scarcity of this valuable resource that you can see in the next link: (WORLDBANK, 2015) Indeed "…. The agricultural area is the sum of arable land, permanent crops, permanent meadows and pastures. The FAO definition for arable land is land under temporary agricultural crops (multiple-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included in this category. Data for "Arable land" are not meant to indicate the amount of land that is potentially cultivable…The Land Area of the World is 13,003 million ha. 4,889 million ha are classified as 'agricultural area' by the FAO (this is 37.6% of the Land Area). The agricultural area use is divided into 3 categories: arable land (28% of the global agricultural area), permanent crops (3%) and permanent meadows and pastures (69%) which account for the largest share of the world's agricultural area…" (OUR WORLD INDATA, 2015) (In this web page you can find maps and detailed statistics about the uses of land in the world).

We live inside an entropic universe. All the forms of matter and energy are subject to entropy: there is an ineluctable and non-reversible process of dissipation, degradation, and deficit in all the existing things (planets, animals, plants and human beings). Human beings and their economic activity produce only transformation of existing forms of matter and energy and, moreover, generate waste: "…The economic process, like any other life process, is irreversible; hence, it cannot be explained in mechanical terms alone. It is thermodynamics through the Entropy Law, that recognizes the qualitative distinction which economists should have made from the outset between the inputs of valuable resources (low entropy) and the final outputs of valueless waste (high entropy). The paradox suggested by this thought, namely, that all the economic process does is to transform valuable matter and energy into waste, is easily and instructively resolved. It compels us to recognize that the real output of the economic process (or of any life process, for that matter) is not the material flow of waste, but the still mysterious immaterial flux of the enjoyment of life. Without recognizing this fact, we cannot be in the domain of life phenomena…" (Georgescou-Roegen, 1975, pág. 353)

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

This natural process of entropy is accelerated and aggravated because the economic growth (due the unbound greed of investors and consumers) exacerbates the levels of depletion of natural resources and the generation of dangerous wastes.

Asymmetric frontiers

The internal terrestrial natural resources are object of appropriation, speculation, depredation and conflict. The land is captured, appropriated and concentrated by means of fences and frontiers: the owners of the soil can control the rhythms and destinations o the fruits of photosynthesis; the proprietors of mines can control the velocity of depletion of the mineral and energetic non-renewable resources; and ultimately key natural resources (water, air, seeds, and genes).

There is a continual and growing increment of natural frontiers and ecological limits because the existence of two big problems: the demographic explosion, and the unbound greed or rate of impatience. There are visible signals and registers about the decreasing returns of natural renewable and non-renewable resources of the planet. Our small planet is not an unbounded and virgin territory to promote an economy of cow-boys, is a bounded and fragile and broken-down spaceship. Today is a suicide-mission the task to find places to deposit the high quantity of dangerous wastes, and an innocent utopia the search of new clean and wild spots to go because the deterioration of natural environment and the social and economic crises.

Property rights are the outcome of a mixture of military, economic and ideological power which permit that an owner can impose barriers to entry (fences and frontiers designed to exclude poor and foreigners) and can subtract resources by means open or dissimulated plunder. Indeed, the property rights permit that proprietors have the additional power to generate externalities (or to impose positive or negative gifts or donations to other people). Following and amplifying the ideas of (Ostrom, 2010) (Buchanan, 1965) we elaborated the next taxonomy and conceptualization of property rights:

	Table 1: a classification of property rights in relationship with subtraction and exclusion		
		EXCLUSION OF PEOPLE	
		High	**Low**
SUSTRACTION OF RESOURCES	**High**	Private property	Impure public goods
	Low	Club Goods	Pure public goods

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

In the table 1 appear differentiated four types of property rights:

a. Private property that implies high levels of subtraction of resources and exclusion of people, because greedy consumers and investors are interested in the exclusive maximization of their utilities (extravagances and overconsumption, and exorbitant levels of monetary benefits and accumulation of assets).

b. Impure public goods characterized by low barriers to entry (weak fences of protection) and high levels of subtraction of resources (and contamination) because they are used like open reserves. The underdeveloped and peripheral nations in the international arena, and the countryside in the domestic environment are in this scenario.

c. Club goods (or exclusive reservoirs of privileges) typified by prohibitive barriers to entry of foreign people -especially those coming from poorer countries- and exacerbated protectionism (in order to minimize the subtraction of resources, and growth of contamination) inside its frontiers. The military, economic, and ideological empires of the world, those hegemonic developed centers of the world in the international arena, and big and populous urban areas in the national environment are in this privileged scenario.

d. Pure public goods that are categorized like open and ultra-abundant resources because of the practical impossibility to impose fences upon them (barriers to entry) and its null or insignificant levels of depletion and degradation. God (because his or her infinite magnanimity and love) and the Sun (because it's gigantic and continuous production of energy) are two paradigmatic examples of this rare type of goods.

Economic efficiency versus ecological efficiency:

The modern material progress which is simplistically expressed in terms of economic growth (a growing GDP) occults that opulence (unbounded forms of consumption and luxury) implies a lot of unrecoverable ecological dangers.

Conventional economist explains and show the development of new goods and services (expressed in qualitative terms), and the notable increment of the national product (expressed in quantitative and monetary terms). Indeed, the indicators of economic growth (Gross Domestic Product, Productivity, and Consumption per Capita) are the new flag of nations and their symbol of opulence. The other non-recognized and very dirty side of modern economic progress (growth, development of "productive forces") is the irreversible environmental danger because the depletion of renewable and non-renewable natural resources, and deterioration and contamination of nature.

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

According to Mayumi (Mayumi, 2012) there are two kinds of efficiency, namely: the ecological efficiency (EFT1) that is concerned with the minimum energy throughput needed for a particular structure/function in society; and the economic efficiency (EFT2) that has beneficial effects on the ability to maintain more complexity and hierarchy in society and is known as the economic productivity (the quantity of outputs minimizing time of labor). Using the available information EFT1 can be roughly identified with a low ecological footprint, while EFT2 is measured in terms of economic growth and others indicators of opulence.

The main exponents of ecological economics (a derivation from bioeconomics) have demonstrated the impossibility of substitution among the named "factors of production" (land, capital and labor). The main argument of this theorist is that human beings cannot create (produce and, consequently substitute) the essential inputs from nature (matter, energy and life); the human work consists only in a transformation (of place and form) of natural resources which, moreover, implies high and growing levels of depletion, degradation and contamination.

The main defenders of environmental economics are based in neoclassical economics which is applied to the study of environment scarcities and externalities, and they propose the idea of sustainable development (a fatal conceit to find technological solutions in order to maintain high levels of growth and development minimizing the levels of depletion and contamination), moreover, they defend the absurd belief in the possibility of substitution between nature and human labor.

Two dissimilar worlds in the planet

Our planet can be divided in two worlds: the regions of developed countries and cities (with high EFT2 and low EFT1) and the under-developed nations and extensive zones of virgin lands (with high EFT1 and low EFT2). Indeed, some zones of the countryside of all the nations (developed and underdeveloped) are very productive factories (governed by the artificial time of mechanical clock) and the consumption of fossil fuels and petrochemicals, and are used to dams, monocultures and manipulation of animals. Only the organic agriculture and the preservation of natural ecosystems can promote a low ecological footprint and a high EFT1.

The humanity is not an open, inclusive, universal and fraternal family or global community that takes care of our common home. The arena of international relations is a scenario of Hobbesian jungle: gigantic empires and small domains denominated "state nations" and "communities of nations" are bunkers of egoism and exclusive interest. Inside each nation citizens are defending specific domains of egoism like interest groups, social classes, firms, neighborhoods, families and, finally, individuals.

Nations (and the other mentioned collectivities) are species of "club goods" that arbitrarily imposes frontiers (military, economic, social, and symbolic barriers to entry) in order to

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

exclude outsiders or foreign people (constituted by the rest of the world) and guaranties a minimization of rivalry inside the limits of the nation. Clubs impose high barriers to entry and maintain and feasible number of members (a population of economic equilibrium), because the excess of population (intruders, foreigners and very poor compatriots) are the main cause of congestion, rivalry and economic and social deterioration.

The global market is not the idyllic, transparent and voluntary exchange of free nations that promotes the comparative advantage of each competitor, and the convergence towards development and opulence. The globalized market involves a set of hierarchical and asymmetric relationships and unilateral transactions (externalities or fluxes without retribution or compensation) between the two aforementioned worlds: developed nations and cities, and underdeveloped nations and wild regions. The opulent and developed nations and cities exhibit a temporal and fraudulent type of "recurrent growth and development" because they cause the subtractions, depletion, and deterioration of nature in their countryside and in the marginal or underdeveloped nations. The powerful and opulent developed nations (and urban sectors) import low entropy resources (raw materials in form of water, foods, minerals, fossil fuels, biofuels, and animals) from underdeveloped nations (and countryside), and exports high entropy resources (surplus of goods and services, machines and, mainly, wastes and weapons) to this periphery. Moreover, powerful empires impose debts and prohibitions (for example the war on drugs) over the underdeveloped nations.

Political frontiers that protect modern nation states are arbitrary, anti-natural and anti-liberal barriers. The imposition of boundaries between countries with different levels of development (high EFT2) or low ecological footprint (high EFT1), different ranks of welfare and freedom, is a task condemned to the failure. The growing porosity, vulnerability, and obsolescence of some antiquate frontiers is exemplified by the great stone museum know today like "The Great Wall of China". The imposition of limits and fences against competition is an absurd, expensive, and trivial strategy of protectionism and naïve nationalism: the wise (Bastiat, 2004) remembered that the fabricants of terrestrial lamps cannot contend against the Sun (a superabundant source of free light).

The permanent growth of the aforementioned fluxes of low entropy resources and energies, wastes, weapons, investments, money and people are producing at least three kinds of problems of insecurity: a) human and environmental insecurity to the underdeveloped nations; b) military and economic insecurity to the opulent nations; and c) ecological insecurity to the entire planet.

Conclusion: Foot voting and migration in the short run

Because deterioration of organizations and collectivities (like nations) human beings have the political resource of exit which means freedom of mobility and capacity to foot voting –in theory. In order to save life, to protest against economic and social injustices, and to escape

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

from regions that suffers crises, wars and environmental dangers, some people choose to exit from dangerous locations to better regions. The resource of migration that implies mobile voters and freedom of mobility or exit to (Hirschman, 1970) and foot voting to (Tiebout, 1956), is a strategy of social resistance against the arbitrary imposition of frontiers and, at least in the short run can promote some kind of justice: exit and foot voting of poor people escaping from deteriorated and violent regions to opulent and pacific nations is a social force that promotes a kind of distribution of benefits and cost, and express a claim of poor and desperate people. Sadly 25 years after the destruction of the ignominious Berlin Wall there are dozens of ominous fences and frontiers. But today exist a wave of exit (foot voting) from turbulent regions to opulent and more peaceful countries. Indeed, the exit of poor people from deteriorated and turbulent zones implies, simultaneously, the entry of these collectivities in opulent and peaceful zones. In the short run this strategy of exit or foot-voting contributes to promote a distribution of wealth and risk, uncertainties and dangers, and positive opportunities to all the regions and, moreover, is a powerful step towards the construction of a cosmopolitan citizenship. Nevertheless, is required a gigantic effort of critical education to understand that we live in a common and finite home (Francis, 2015), and we want to change our dangerous and violent behavior in order to attain environmental and human security.

Bibliography

BASTIAT, F. *Essays on Political Economy.* New York : G. P. Putnams and Sons . 2004.

BOULDING, K.. The Economics of the Coming Spaceship Earth. En H. Jarret, *Resources for the Future* (págs. 3-14). Baltimore: Johns Hopkins University Press. 1966.

BUCHANAN, J. An Economic Theory of Clubs . *Economica* , 1-15. 1965.

CANTE, Fredy and QUEHL, Hartmut (editors). *Handbook of Research on Peace Building and Transitional Justice in Turbulent Regions.* Hershey: Igi Global . 2015.

CREDITSUISSE.*Credit Suisse.*Obtenido de www.creditsuisse.com: https://www.credit-suisse.com/us/en/about-us/research/research-institute/news-and-videos/articles/news-and-expertise/2015/10/en/global-wealth-in-2015-underlying-trends-remain-positive.html (13 de October de 2015).

FRANCIS, P. *Papal Encyclicals on line* .Obtenido de papalencyclicas: http://www.papalencyclicals.net/ (18 de June de 2015).

GEORGESCOU-ROEGEN, N. Energy and Economic Miths. *Southern Economic Journal* , 347-381. 1975.

HARDIN, G. The Tragedy of the Commons. *Science*, 1243-1248. 1968.

HIRSCHMAN, A. *Exit, Voice, and Loyalty: responses to decline in firms, organizations and states.* Cambridge, Massachusets: Harvard University Press. 1970.

HUMMITZSCH, T. *focus migration*. Obtenido de www.focus-migration.hwwi.de: http://focus-migration.hwwi.de/index.php?id=6239&L=1(14 de june de 2015).

IOM. *World Migration Report 2015.* Paris: IOM. 2015.

MAYUMI, K. *The Origin of Ecological Economics: The Bioeconomics of Georgescu-Roegen.* New York : Routledge. 2012.

NATIONAL GEOGRAPHIC.*The National Geographic.*Obtenido de www.nationalgeographic.com: http://news.nationalgeographic.com/2015/09/150919-data-points-refugees-migrants-maps-human-migrations-syria-world/(19 de September de 2015).

NETWORK GLOBAL FOOTPRINT.*footprintnetwork*. Obtenido de footprintnetwork.org: http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/(15 de October de 2015).

OSTROM, E. Beyond Markets and States: Polycentric Governance of Complex Economic Systems. *American Economic Review*, 641-672. 2010.

OURWORLDINDATA. *OUR WORLD IN DATA.*Obtenido de ourworldindata.org: http://ourworldindata.org/data/food-agriculture/land-use-in-agriculture/ (4 de December de 2015).

PEACE, I. f.*Visiionofhumanity*. Obtenido de Global Peace Index 2015: http://www.visionofhumanity.org/#/page/contact (10 de February de 2015).

SANDLER, Todd, and ARCE,Daniel. Pure Public Goods versus Commons. *Land Economics* , 365-368. 2003.

THE ECONOMIST. *The Economist.* Obtenido de www.economist.com: http://www.economist.com/blogs/graphicdetail/2016/01/daily-chart-5?fsrc=rss (17 de January de 2016).

TIEBOUT, C. A Pure Theory of Local Expenditures. *Journal of Political Economy*, 416-424. (1956)

UNHCR.*UN agency for refugees*. Obtenido de www.unhcr.org: http://www.unhcr.org/558193896.html (21 de February de 2016).

UNITED NATIONS. *United Nations.*Obtenido de World Urbanization Prospects: http://esa.un.org/unpd/wup/Publications/Files/WUP2014-Highlights.pdf(20 de November de 2014).

UNWATER.*UN WATER ORGANIZATION.* Obtenido de unwater.org: http://www.unwater.org/statistics/statistics-detail/en/c/260727/(7 de October de 2014).

INTELLECTOR
CENEGRI
CENTRO DE ESTUDOS EM GEOPOLÍTICA & RELAÇÕES INTERNACIONAIS
ISSN 1807-1260 E-ISSN 1808-0529 - Rio de Janeiro - Brasil
Centro de Estudos em Geopolítica e Relações Internacionais - CENEGRI

Ano XIII	Volume XIV	Nº 28	Setembro/Agosto 2017	Rio de Janeiro	ISSN 1807-1260

www.revistaintellector.cenegri.org.br

UNWATER. *unwater.org.* Obtenido de un water kwip: http://www.unwater.org/kwip (30 de November de 2014).

USGS.*USGS Water Science School.* Obtenido de water.usgs.gov: http://water.usgs.gov/edu/earthhowmuch.html (4 de December de 2015).

WORLDBANK. *Data world bank percentage of arable land.*Obtenido de data.worldbank.org: http://data.worldbank.org/indicator/AG.LND.ARBL.ZS/countries?display=map (4 de December de 2015).