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ENVIRONMENTAL JUSTICE AND ECONOMIC DEGROWTH:

AN ALLIANCE BETWEEN TWO MOVEMENTS

Ecological economics, Social metabolism, and Political ecology

The flows of energy and materials in the world economy have never been so large as today. This article argues that this increased social metabolism is causing more and more conflicts on resource extraction and waste disposal. This gives rise to a movement for environmental justice around the world.(Agyeman et al, 2003, Carruthers, 2008, Pellow and Brulle, 2005, Pellow, 2007, Schlosberg, 2007, Roberts, 2007, Walker, 2009). The words "environmental justice" were first used in the United States in the early 1980s for local complaints against "environmental racism", i.e. the disproportionate pollution burdens in areas primarily inhabited by disadvantaged ethic groups (Bullard, 1990, 2005, Pulido, 1996, Camacho, 1998, Carmin and Ageyman, 2010) but the term is now applied to spontaneous movements and EJOs anywhere in the world (and to the networks or coalitions they form across borders, Bandy and Smith, 2005), resisting extractive industries and complaining against pollution and climate change (Martinez-Alier, 2002). Environmental justice is about intragenerational distribution, not forgetting intergenerational distribution, and including non-distributional dimensions of justice such as recognition and also prevention of participatory exclusions (Agarwal, 2001).

The EJOs (environmental justice organizations) are potential allies of the environmental groups in rich countries which criticize the obsession for GDP growth. These groups form the Degrowth movement (Latouche, 2006), one of whose origins lies in the field of ecological economics.

Ecological economics is a transdisciplinary field born in the 1980s (Costanza, 1991, 1996, Ropke 2004, Martinez-Alier and Ropke, 2008, Spash 2009) of a confluence of interests between ecologists who studied the use of energy in the human economy (Odum, 1971, Jansson, 1984), and dissident economists (Daly, 1968, 1973, 2007) who followed Nicholas Georgescu-Roegen (1966, 1971) and Kenneth Boulding (1968).
Work by K.W. Kapp on social costs (1950), and by Kneese and Ayres (1969) on the pervasiveness of externalities, was also influential. Ecological Economics encompasses the physical study of the economy (social metabolism), the study of property rights on the environment and their relation to environmental management, the study of the environmental sustainability of the economy (can manufactured capital substitute for so-called "natural capital"?), the economic valuation of positive environmental services and of negative "externalities", and also multi-criteria evaluation methods to rank alternatives in the presence of incommensurable values.

Social metabolism means the flows of energy and materials in the economy. The study of social metabolism overlaps with industrial ecology. Sometimes it is called social ecology (as in the Sozial Ökologie institute in Vienna led by Fischer-Kowalski), measuring the links between economic growth and use of energy (Warr, Ayres et al, 2010), and the absolute or relative dematerialization of the economy (i.e. relative to GDP) by studying material flows.

Energy flows in the economy have been analysed for a long time (Cottrell, 1955, Martinez-Alier, 1987, 2007, Haberl, 2001, Cleveland 2008a,b, Hall et al 1986, Sieferle, 2001, Debeir et al, 1991). One main point of interest is the rise or decline in the EROI (energy return on energy input), the inverse of the energy cost of obtaining energy.

Accounts of material flows are now done as a matter of course by Eurostat, the EU statistical office. They also exist for Southern countries (sometimes as doctoral theses), often emphasizing the existence of large physical trade deficits. (Russi et al, 2008, Perez-Rincon, 2006, 2007, Vallejo, 2010, Vallejo et al, 2010).

Political ecology (Blaikie & Brookfield, 1987, Robbins, 2004, Peet & Watts, 1996, Rochelau et al, 1996, Bryant & Bailey, 1997) studies ecological distribution conflicts, and particularly the use of power to secure access to environmental resources and services, or to shift the burdens of pollution according to ethnic origin, social class, caste or gender. It focuses on local and international resource extraction and waste disposal conflicts, and studies the use of power to decide procedures for decision-making in environmental issues, allowing or banning different valuation languages. Together with environmental sociology, political ecology studies as well the environmental movements. The present article builds on the knowledge provided by these sustainability sciences.

Trends

Nearly 20 years after the United Nations Rio de Janeiro conference of 1992, the environmental trends are alarming. The modest objective of the EU and the United Nations of halting the loss of biodiversity has not been achieved and it has been ditched. The HANPP (human appropriation of net primary production) puts increasing pressure on biodiversity (Vitousek et al, 1986, Haberl et al, 2009). Biodiversity loss is sometimes seen as a market failure to be corrected by suitable pricing. At other times bad governance, unsuitable institutions, and neoliberal policies that promote trade and guarantee foreign investments are also (rightly) blamed. However, environmental impacts including the disappearance of biodiversity are mostly a product of the increased social metabolism of the human economy. This is the main driving factor. The impacts would be similar under Keynesian social-democratic policies, or indeed under socialist or communist economic systems, if the technologies and levels of population and per capita consumption were as those of today.

Thus, the production of the main greenhouse gases continues to grow because of the increased metabolic flows in the economy. Until 2007 emissions of CO2 were increasing by 3% per year. After a halt in the increase in 2008-09, they are now bound to increase again unless there is economic degrowth. They should decrease as soon as possible by 50% or 60% according to the IPCC. To the failure of the Kyoto agreement of 1997 (not ratified by the USA) was added the lack of agreement on emission

reductions in Copenhagen in December 2009. President Obama cannot get the Senate in the United States to agree to carbon dioxide caps or taxes, and conveniently he decided to blame China, which is indeed by now the largest producer of CO2 although per capita it is fortunately still four times below the United States.

CO2 concentration in the atmosphere was about 300 ppm when Svante Arrhenius wrote about the enhanced greenhouse effect in 1895; it is now almost reaching 400 ppm. The yearly increase is 2 ppm. Nothing is being done in practice to reverse this trend. CO2 emissions by the human economy are mostly caused by burning fossil fuels. Peak oil is now very near, perhaps already reached. Peak extraction of natural gas will be reached in twenty or thirty years. This means more burning of coal although the production of CO2 per unit of energy from coal is larger than for oil and gas.

Therefore, taking into account other negative trends like the drop in the availability of many edible species of fish, the spread of nuclear energy and its military proliferation, and the approaching "peak phosphorous", there are reasons to reassert the relevance of the debates of the 1970s on the desirability of a steady-state economy in rich countries and indeed of a period of degrowth (Schneider et al, 2010). Degrowth in rich economies should lead to a steady state economy (Daly, 1973). This movement is helped by the environmental justice movements of the South complaining against ecologically unequal exchange (Bunker, 1984, 1985, 2007, Hornborg, 1998, 2009, Hornborg et al, 2007, 2010, Muradian and Martinez-Alier, 2001, Muradian et al, 2002, Rice, 2007, Roberts and Parks, 2007).

Peak population: love one another more, and do not multiply

Among all the alarming trends and impending "peaks" signalling distributional conflicts, one welcome trend is the rapid decrease in the rate of growth of the human population. Peak population will probably be reached around 2045 at perhaps 8.500 million people. The exhortations to European women to produce more children who will become workers who will pay for the pensions of so many old people, are ridiculous (Latouche, 2007), since the workers would also become pensioners in due course. The pyramid of population (still taught at schools), should be drawn as a rectangle (admittedly with a little pyramid on top). The debates between Malthusians and Marxists, and between Malthusians and some economists who favour population growth, are still relevant today as also the doctrines of the feminist Neo-Malthusians of 1900 (Emma Goldman, Madaleine Pelletier, Nelly Roussel, Margaret Sanger, Maria Lacerda de Moura…) (Ronsin, 1980, Masjuan and Martinez-Alier, 2005).

The socio-ecological transition towards lower levels of use of energy and materials will be helped by the world demographic transition, and more, if population after reaching a peak goes then down to 6,000 million, as some projections indicate (Lutz at al, 2001). Remember that world population increased four times in the 20th century from 1.500 million to 6,000 million. The importance of population growth in environmental impacts is obvious, as indicated in. Paul Ehrlich's equation I = PAT.

Environmental awareness is now influencing birth-rates. But there were many debates already around 1900 on "how many people could the Earth feed" although focusing only on the needs of the human species. There was a large difference between the original Malthusianism of T.R. Malthus and the neo-Malthusianism of 1900 that in

France took the name of *la grève des ventres*. There are then different varieties of Malthusianism, summarized below.

MALTHUSIANISM of Malthus.- Population undergoes exponential growth unless checked by war and pestilence, or by chastity and late marriages. Food grows less than proportionately to the labour input, because of decreasing returns. Hence, subsistence crises.

NEO-MALTHUSIANISM OF 1900.- Human populations could regulate their own growth through contraception. Women's freedom was required for this, and desirable for its own sake. Poverty was explained by social inequality. "Conscious procreation" was needed to prevent low wages and pressure on natural resources. This was a successful bottom-up movement in Europe and America against States (which wanted more soldiers) and Churches. .

NEO-MALTHUSIANISM AFTER 1970.- A doctrine and practice sponsored by international organizations and some governments. Population growth is seen as a main cause of poverty and environmental degradation. Therefore States must introduce contraceptive methods, even without women's prior consent.

ANTI-MALTHUSIANISM.- The view that assumes that human population growth is no major threat to the natural environment, and that it is conducive to economic growth as Esther Boserup (1965) and other economists argued.

The environmentalism of the poor

Another welcome trend is the growth of environmentalism. Awareness of the pressure of population on natural resources is one aspect of it. There are other manifestations. The environmentalism of the poor and of indigenous peoples is growing (Guha & Martinez-Alier, 1997, Dunlap & York, 2008). Activists and communities at the commodity frontiers (Moore, 2000) are sometimes able together with the EJOs to stop extraction of minerals and destruction of habitats and human livelihoods (as in August 2010 in the Niyamgiri Hill in Orissa, against the Vedanta company plans for bauxite mining, Padel & Das, 2010), they exercise the right to previous consent under Convention 169 of ILO that applies to indigenous communities (when they are recognized as such) (Urkidi, 2010b), they also introduce institutions such as local referendums against mining in Latin America (as in Esquel and Tambogrande, Walter & Martinez-Alier, 2010, Muradian & Martinez-Alier, 2003, Haarstad & Floysand, 2007) or develop novel plans for leaving fossil fuels in the ground as in the Yasuní ITT oilfields in Amazon territory in Ecuador (Martinez-Alier & Temper, 2007, Finer et al, 2010, Larrea & Warnars, 2009). Successful attempts have been made to bring to court companies like Shell for what it does in the Niger Delta or Chevron-Texaco for what it did in Ecuador. (Clapp & Utting, 2009).Women are often in the lead in such movements (Veuthey & Gerber, 2010).

The EJOSs of the South defend local identities and territories (Escobar, 2001) but their growth is explained not by the fashion for identity politics but by the conflicts caused by the increased social metabolism of the world economy now reaching the last frontiers. The EJOs and their networks are then a main force in order to make the world economy less unsustainable.

There are conflicts on the unsustainable extraction of biomass (against deforestation including the defence of mangroves, against tree plantations, agro-fuels, land grabbing, excessive fishing), conflicts on mining (gold, bauxite, iron ore, copper, uranium…) or on oil and gas exploration and extraction, conflicts on the use of water (dams, river diversions, aquifers). (Carrere and Lohman, 1996, McCully, 1996, OCMAL, 2010, Bebbington et al, 2007, Bridge, 2004, Martinez-Alier, 2001 a.b, GRAIN, 2007, Gerber et al 2009, De Echave et al, 2009, Svampa and Antonelli, 2009, Urkidi, 2010a, Urkidi and Walter, 2011, Orta et al, 2008, Orta and Finer, 2010). There are also conflicts on transport and on the infrastructures required for transport, and conflicts on waste disposal in cities, in the countryside or overseas (waste dumps or incinerators, air and soil pollution, electronic waste exports, ship-breaking) (Demaria, 2010). The largest waste disposal conflict is on the property rights in the oceans and the atmosphere to dump the excessive amounts of CO2. There are also many conflicts on the application of new technologies (cyanide in open pit gold mining, GMOs, nuclear energy) that cause uncertain risks unfairly distributed (EEA, 2002, Pengue, 2005, Pereira and Funtowicz, 2009).

Against cheap exports and in favour of renewable energy and local people

There are movements in countries which are net exporters of raw materials (Giljum and Eisenmenger, 2004, Muñoz et al, 2009) to tax exports for environmental reasons, or at least to do away with the subsidies for the fossil fuels or metal export industries. One current case takes place in South Africa where there has been opposition to a World Bank loan of US$3.75 billion to electricity company Eskom for the very large Medupi power plant. South African EJOs write, “we see renewable energy, not coal-fired power stations (or nuclear power), as the optimal development path for Southern economies, creating more jobs, building local manufacturing capacity, and avoiding the environmental mistakes of Northern countries. As in South Africa, most World Bank coal power projects are designed to supply industry, not people. They do not necessarily increase per capita access to energy. The industries in turn are mostly geared for export in line with the World Bank’s promotion of export oriented production. The goods are then consumed primarily in developed countries. Further, many industries are established with foreign direct investments. In the process, much of the heavy industry in developed countries has relocated to developing countries in search of cheaper energy and cheaper labour…”

The South African EJOs propose instead a demand side management alternative, beginning by phasing out cheap electricity to “enclave” smelters that have little linkage with the economy and that are capital- rather than jobs-intensive. The freed up energy should be redistributed to provide for a much larger ‘lifeline’ supply of universal Free Basic Electricity to consumers, with a rising block tariff to encourage conservation and help the switch into renewable energy technologies.

Climate justice

Energy cannot be recycled, therefore even an economy that would not grow but that would use large amounts of fossil fuels, would need “fresh” supplies coming from the commodity frontiers. The same applies to materials, which in practice can be recycled only to some extent (like copper, aluminium or steel), not more than 40 to 60 per cent.

When the economy grows, the search for materials and energy sources is of course even greater. There is “accumulation by dispossession” (Harvey, 2003) or *Raubwirtschaft*. One could add the notion of “accumulation through contamination”, meaning that capitalist profits increase by the ability to dispose of the waste at zero or low cost. This does not indicate so much a market failure as a (provisional) cost-shifting success (Kapp, 1950).

Not only the Climate Justice activists (Bond, 2010a), also many governments of relatively poor countries now claim the repayment of the ecological debt, a slogan first raised in Latin America among the EJOs in 1991.(Robleto and Marcelo, 1992, Smith, 1996, Simms, 2005, Peralta, 2009). The United States, the European Union and Japan do not acknowledge this debt. However, in Copenhagen in December 2009 at least 20 heads of government or ministers explicitly mentioned the ecological debt (or climate debt) in their speeches, some using also the loaded word “reparations”. Pablo Solon, Bolivia’s ambassador to the United Nations, said that "admitting responsibility for the climate crisis without taking necessary actions to address it is like someone burning your house and then refusing to pay for it. Even if the fire was not started on purpose, the industrialised countries, through their inaction, have continued to add fuel to the fire… It is entirely unjustifiable that countries like Bolivia are now forced to pay for the crisis. This creates a huge draw on our limited resources to protect our people from a crisis created by the rich and their over-consumption… Our glaciers dwindle, droughts become ever more common, and water supplies are drying up. Who should address this? To us it seems only right that the polluter should pay, and not the poor. We are not assigning guilt, merely responsibility. As they say in the US, if you break it, you buy it." The background to Solon’s speech was Todd Stern’s statement (as US negotiator) at a press conference in Copenhagen on 10th December 2009: "We absolutely recognize our historic role in putting emissions in the atmosphere up there that are there now. But the sense of guilt or culpability or reparations - I just categorically reject that." (Bond, 2010b, also in http://www.climate-justice-now.org/bolivia-responds-to-us-on-climate-debt-if-you-break-it-you-buy-it/).

The claim for compensation for the climate debt twenty years after Rio 1992 is now audible to anybody witnessing the international negotiations. Thus in December 2009, the then Foreign Relations Minister of Ecuador (Fander Falconí), stated in Copenhagen that poor countries were like “passive smokers”, mentioning explicitly the failure to apply the “polluter pays principle”. He also asked for repayment of the climate debt or historical liabilities for climate change. Parikh (1995) calculated at about USD 75 billion per year the climate debt from Northern to Southern countries. She counted the costs saved by the rich by not carrying out the necessary reductions in emissions. Srinivasan et al. (2008) quantified (at over USD 2 trillion) the accumulated ecological debt from North to South. A large part of this is the climate debt. This was published in *Proceedings of the National Academy of Sciences*, signalling the credibility of the concept of “ecological debt”. In several books and articles, Paredis et al (2008) and Goemmine & Paredis (2009a,b) provide a conceptual discussion and quantification method of the ecological debt, a grass-roots concept that, as they say, has “matured”.

Via Campesina: peasant agriculture cools down the earth

In the early 1970s, taking up H. T. Odum’s view of modern agriculture as “farming with petroleum” (Odum, 1971), several researchers did accounts of the output-input ratio of

agricultural systems. The best-known calculations were by Pimentel (Pimentel et al, 1973) published in *Science* (also Pimentel, 1979). It was striking to realize that the energy output-input ratio of corn production in Iowa or Illinois was lower than that for the traditional *milpa* corn production system of rural Mexico. From an economic point of view, modern agriculture increased productivity per unit of labour and to some extent per hectare but from a physical point of view, it lowered the energy efficiency. (Leach, 1975, Naredo &Campos, 1980).

Via Campesina, a peasant and small farmer international coalition (Desmarais, 2007, Borras, 2008, Martinez-Torres and Rosett, 2010) is now very much present in the climate change debate, with its thesis that "sustainable peasant agriculture cools down the earth" (WRM, 2008), an argument partly based on the fact that modern industrial agriculture is "no longer a producer of energy but a consumer of energy". Studies on the EROI of agriculture (the energy return on energy input) since the 1970s back this position. Ecological agrarianism or ecological neo-Narodnism (as I called it in 1987) is growing. (Martinez-Alier, 2011).

Socially sustainable economic degrowth

While in the South the EJOs and their networks fight against abuses in resource extraction and waste disposal, in some rich countries a social movement for sustainable economic degrowth has appeared. It is based on civil society groups but it has support also from some academics (though not yet from governments) as in the conferences in Paris in April 2008 and in Barcelona in March 2010 (www.degrowth.eu). In Italy and France it is called the *decrescita* or *décroissance* movement.

Socially sustainable economic de-growth (Martinez-Alier, 2009b, Martinez-Alier et al, 2010) is both a concept and a small social-grassroots movement with its origins in the fields of ecological economics, social ecology, economic anthropology and in environmental and social activist groups. The movement claims different ancestors, among whom Nicholas Georgescu-Roegen (1906-94), founding father of ecological economics, author of *The entropy law and the economic process* (1971). A selection of writings by Georgescu-Roegen was published in French (translated by. J. Grinevald and I. Rens, 1979) with the title *Démain la décroissance.*

Not surprisingly, Degrowth activists in France and Italy are keen on one concept of industrial ecology and ecological economics: the Jevons' paradox or "rebound effect" (Jevons, 1865, Polimeni et al, 2009). They have read economic anthropologists such as Serge Latouche (2006), they are inspired by environmental thinkers of the 1970s such as André Gorz and Ivan Illich. They could have read also *A prosperous way down* by H.T. and E. Odum (2001) but they probably have not. Anyway, the European Degrowth movement is not based on iconic writings. It is a social movement born from experiences of co-housing, squatting, neo-ruralism, reclaiming the streets, alternative energies, waste prevention and recycling. It is a new movement, and it has become a new research programme towards a branch in the sustainability sciences that could be called "economic degrowth studies" closely related to "socio-ecological transition studies" (Fischer-Kowalski and Haberl, eds., 2007, Krausmann et al, 2008, Krausmann et al, 2009). The keyword "Economic Degrowth" has successfully been introduced in academic journals in English since the Paris conference of 2008, and special issues have been published or are forthcoming in 2010-11 in *Journal of Cleaner Production*,

Ecological Economics, Environmental Values. Research is needed on the environmental, technological, demographic, social and socio-psychological aspects of socially sustainable economic degrowth leading to a steady-state economy (Kerschner, 2010), in alliance with the environmental justice movements of the South.

Beyond GDP lies Economic Degrowth

For poor rural people involved in resource extraction conflicts, the threat to their livelihood in the form of water pollution and land grabbing is obvious. They draw environmental resources and services directly from nature, outside the market. When displaced, they cannot afford to buy a house and land. They cannot even pay for water in plastic bottles if their rivers and aquifers are polluted by mining. This fact has given rise to the notion of the "GDP of the poor", which is not included in the economic accounts. This is one of the reasons why we should mistrust national macroeconomic accounting and go "Beyond GDP".

The expression, Beyond GDP, became recently fashionable in Brussels among some European civil servants and politicians 40 years after Commission President Sicco Mansholt in 1972 criticized GDP and proposed an end to economic growth in rich countries. The slogan in Brussels is "the greening of the economy: beyond GDP".

GDP growth goes together with increasing pressure on biodiversity, climate change, and the destruction of human livelihoods at the commodity frontiers. Excessive consumption by rich and middle class people is not only a menace for other species and for future generations of humans. It deprives poor people now already of a fair share of resources and environmental space (Spangenberg, 1995).

Environmental activists are comforted by the academic critiques of GDP. Actually, feminist activists and academics (Waring, 1988) made long ago a convincing argument against GDP accounting because it "forgot" not only to count nature's services but also unpaid domestic work. Moreover, another type of critique against GDP accounting is now surfacing socially, the so-called Easterlin Paradox as updated by work by social psychologists. It seems that increases in happiness correlate with increases in income only below a certain level of per capita income.

Such criticisms against the methods and relevance of GDP accounting go much beyond complementary measurements of social performance such as the HDI (human development index) that correlates very closely with GDP per capita. They also go beyond the idea of simply "greening the GDP", or introducing satellite accounts.

Among the physical indices of sustainability, the best known is the Ecological Footprint (EF) that made its debut in 1992 at an ecological economics conference (Rees and Wackernagel, 1994). The WWF publishes the EF results regularly. The EF translates into a single number in hectares the use per capita of land for food, fibre, wood, plus the built environment (paved space for houses and roads), plus the hypothetical land that would absorb the carbon dioxide produced by burning fossil fuels. For rich industrial economies, the total comes to 4 or more hectares per capita, of which over half is the hypothetical carbon dioxide absorption land. The representation in hectares is easy to understand, and many people like it, but we know that the carbon dioxide produced by human goes to the oceans (about one third, actually acidifying it), and that half the

amount produced remains in the atmosphere (causing the enhanced greenhouse effect). The EF calculations also assume that humans have a right to use most of the planet.

Going beyond GDP accounting means something different from "greening the GDP" or at the other extreme, genuflecting before one single environmental index such as the EF. It should mean to go into participatory and deliberative multicriteria assessment of the economy, working with ten or twelve indicators of socio-cultural, environmental and economic performance.(Shmelev & Rodriguez-Labajos, 2009, Zografos & Howarth, 2008). Perhaps all indicators improve together in some period or, more likely, some improve while some deteriorate. "Beyond GDP" should mean to set objectives for reduction in the use of energy and materials, and for other indicators going beyond the single imperative of economic growth even when this means to leave some financial debts unpaid.

Conclusion: an obvious alliance

The debts can be paid by squeezing citizens (to some extent only) through taxes and wage reductions, or by inflation, or by economic growth. But economic growth (or in rich countries even the steady state with present levels of population and consumption) is not compatible with environmental sustainability. At this moment, the effort to push up the rate of economic growth in OECD countries by the obligations to repay financial debts is in direct conflict with the availability of exhaustible resources and with the capacity of waste sinks. Ecological economists rightly refer on this point to Soddy's views of 90 years ago (Daly, 1980, Kallis et al, 2009)..

Instead of becoming obsessed with growth that will allow the repayment of the financial debt accumulated and will bring happiness to all, we should act in rich countries in such a way that we do not increase our large accumulated ecological debt. Because of this, a moderate economic degrowth (implying a lower social metabolism) is a plausible objective for the rich industrial economies. This would be supported by the EJOs and their networks in the South which are fighting in ecological distribution conflicts. The EJOs complain against ecologically unequal exchange and the ecological debt, they are indeed potential allies of the movement in rich countries asking for socially sustainable economic degrowth.

The defining element in Political Ecology is the presence of power in the ecology of humans. Humans have modified ecosystems by their technological ability to increase the availability and exosomatic use of energy and materials including biomass and water. Such changes, we realize now, are not sustainable in the long run. They change the climate (as announced since in 1895), they are destroying biodiversity at a rapid pace. The increase in the flows of energy and materials (the social metabolism of advanced economies) has been achieved at heavy social and environmental costs, not only for future generations but also at present. There are enormous inequities in the world, both between North and South, but also in the South and in the North. Some people use per year 250 GJ (gigajoules) of energy, most of which from oil and gas, other people manage with less than 10 GJ, including their food energy and some wood or dried dung for cooking. To keep such unequal ecological distribution of access to resources, to maintain also the inequities of waste disposal (including unequal access to the carbon dioxide sinks) the powerful exercise power, sometimes disguised by market relations and unjust property rights. Power is sometimes brute force, sometimes it is the

ability to set the agenda and to impose decision procedures excluding whole classes of people as in the international negotiations on biodiversity and climate change.

The optimistic views regarding ecological modernization, absolute "dematerialization" of the economy, and the downward slopes in the Kuznets environmental curves are confronted with the reality of increased inputs of energy and materials into the world economy, increasing production of waste including carbon dioxide, and increase displacement of environmental costs. The EJOs of the South are one main force fighting against socio-environmental injustices and moving the world economy towards sustainability. They are active at scales from local to global but they do not have a position against economic growth in their own countries which would be very unpopular and indeed untenable in Latin America, Africa or the poor countries of Asia. Nevertheless they are helping to introduce new concepts such as the *Buen Vivir*, Good Living (*Sumak Kawsay*, in Quechua) in the 2008 constitution of Ecuador, away from a fixation on growth.

Their potential alliance with the Degrowth movement in Europe cannot require an agreement that economic growth should be stopped everywhere. It is based rather on a common perspective against the hegemony of economic accounting in favour of pluralism of values (as recommended by ecological economics, Martinez-Alier et al, 1998), the acceptance and support for bottom up feminist neo-Malthusianism, the recognition of the ecological debt and the critique of ecologically unequal exchange. The export trade in commodities is not seen as virtuous because it goes together with an increased social metabolism and therefore with environmental damages. Contrary to the thesis that even Oxfam has regularly put forward (open borders to exports from the South), the alliance between environmental justice movements and the degrowth movement is based on what Latin American economists and politicians such as Alberto Acosta in Ecuador call "post-extractivism".(against both "enclave economies and the resource curse" and "redistributive extractivism"). (Gudynas, 2010). Also, the claim for repayment of the climate debt from the North to the South and the demand that this debt should increase no further, reinforces the rich countries´ degrowth environmentalists.

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