



Survey

Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm

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ABSTRACT

“Sustainable de-growth” is both a concept and a social-grassroots (Northern) movement with its origins in the fields of ecological economics, social ecology, economic anthropology and environmental and social activist groups. This paper introduces the concept of sustainable de-growth by mapping some of the main intellectual influences from these fields, with special focus on the Francophone and Anglophone thinking about this emergent notion. We propose hypotheses pertaining to the appeal of sustainable de-growth, and compare it to the messages enclosed within the dominant sustainable development idea. We scrutinize the theses, contradictions, and consequences of sustainable de-growth thinking as it is currently being shaped by a heterogeneous body of literature and as it interacts with an ample and growing corpus of social movements. We also discuss possible future paths for the de-growth movement compared to the apparent weakening of the sustainable development paradigm.

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1. Introduction

The dominant economic paradigm rewards *more* instead of *better* consumption and *private* versus *public* investment in *man-made* rather than *natural* capital. Such triple self-reinforcing biases have been locked in the social mentality to promote a promethean notion of chrematistic growth. Associated with the neoliberal ‘mantra’ of the supremacy of markets for fostering prosperity through ever growing efficiency, the praxis of this economic model is built upon privatisation of traditional public goods and services and reinforcing economic globalisation through international governance structures maintained through the likes of the IMF, WTO, and the World Bank. Even after attempts from ecological economics and sister disciplines to demonstrate the intrinsic limits of this model, we now face continuous environmental and economic crises compounded by a growing disjuncture between the real economy (in which the value of natural capital is seldom recognised) and the fictitious paper economy of finance.

In a context of increased global environmental problems, the “sustainable development” discourse (20 years after the Brundtland Report, WCED, 1987) has been unable to produce the overarching

policies and radical change of behaviour needed at individual and collective scales. We still live in a world of unchecked consumerism, excessive materials use and fossil fuel addiction. As a result, there are renewed calls to depart from the promethean economic growth paradigm and to embrace a vision of sustainable de-growth, understood as an equitable and democratic transition to a smaller economy with less production and consumption. Such a system, in the eyes of its proponents, would allow a “prosperous way down” (Odum and Odum, 2006) or at least a soft landing rather than a crash due to environmental collapse (Recio, 2008; Martínez-Alier, 2008, 2009; Kallis et al., 2009). This paper puts into context and traces the concept of “sustainable de-growth” and provides insights on the implications of this paradigm.

“De-growth” stands here literally for the French word *décroissance*. “Socially sustainable economic de-growth” (*la décroissance économique socialement soutenable*) is a concept that is finding its way into social ecology, human ecology, and ecological economics. The discussion on de-growth that Nicholas Georgescu-Roegen started three decades ago is again a topic for discussion in rich countries. This concept is being catapulted in academic circles in conjunction with wider social and environmental grassroots groups. Not only are ecological economists working on the idea of sustainable de-growth and its implications as an emergent paradigm to break locked-in concepts inherited from the very malleable 1980s idea of sustainable development (e.g., Martínez-Alier, 2009; Kerschner, 2010), but there are also vigorous social debates in non-academic spheres, such as within Northern social movements for environmental and social

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justice. Altogether there is a flourishing literature directly associated with this perspective.¹

It is not simple to capture the meaning of sustainable de-growth in a nutshell. Such explicit opposition to the motto of sustained growth does not imply an exact opposition to economic growth. It advocates instead a fundamental change of key references such as the collective imagination (*changement d'imaginaire*) and the array of analysis, propositions and principles guiding the economy. According to Serge Latouche (2003: 18), perhaps the main intellectual Francophone reference on de-growth,² a society of de-growth should be understood as a “society built on quality rather than on quantity, on cooperation rather than on competition [...] humanity liberated from economism for which social justice is the objective. [...] The motto of de-growth aims primarily at pointing the insane objective of growth for growth. De-growth is not negative growth, a concept that would be contradictory and absurd, meaning stepping forward while going backward.” Latouche (2006a:16) goes further to point out that de-growth is not a concept and that there is no theory of de-growth, as it does not correspond to a ready-made system. Instead, Latouche describes it as “political slogan with theoretical implications” (*ibid*).

Supporters of de-growth consider that the attractiveness of this motto comes largely from the failure of traditional economic and political systems and their associated ideologies (e.g., capitalism, socialism, social-liberalism and possibly sustainable development as well). For example, according to Ariès (2005:75), de-growth provides an ‘explosive word’ to pulverize current pro-growth ideologies, hence, an easy way to state that growth is not the solution but a part of the problem. However, there is not a single referential text about sustainable de-growth that has yet found its way to the wider academic and political arena, as was the case with the Brundtland Report or the Rio Declaration for Sustainable Development in 1992.³ It can be argued that sustainable de-growth is both a banner associated with social and environmental movements and an emergent concept in academic and intellectual circles, they are interdependent and affect each other.

The paper is structured as follows. Section 2 contextualizes the idea of sustainable de-growth by describing the origins and the main contributions of de-growth thinking in Francophone society which has so little permeated into English speaking countries. This connects to but cannot be totally identified with the idea of sustainable de-growth as emerging in the wider international academic and social movement spheres. Section 3 addresses the origins of the ecological–economic idea of sustainable de-growth in order to better understand its broadening resonance within ecological economics and in particular in relation to the concept of the steady state economy. Since there are some aspects that significantly differ between the original French de-growth movement and the wider notion of sustainable de-growth as used by some ecological economists, Section 4 delineates and discusses such differences. Then in Section 5 we reflect on the limits and weakening that the sustainable development paradigm *à la* Brundtland is currently undergoing and we juxtapose this situation with the potential role of the idea of sustainable de-growth. The paper concludes by opening new avenues in order to enhance the influence of de-growth thinking in environmental and social policy change.

2. Sources, profile and characteristics of de-growth à La Française

Some de-growth analyses can be traced and also paralleled with ecological economics. However, there are also some genuine specificities of the French de-growth movement that must be acknowledged in order to draw an accurate picture of how it originated and how it connects to the wider notion of sustainable de-growth more broadly.

The French de-growth approach has significant historical intellectual roots. Beginning in the mid-1930s in a society coping with the trauma of the First World War and the economic crisis of 1929, Jacques Ellul and Bernard Charbonneau published a manifesto in which they criticized modernity and asked for a ‘revolution of civilisation’ (see: Troude-Chasteney, 1998). Before the British economist Ernst “Fritz” Schumacher’s (1973) publication of *Small is Beautiful*, Charbonneau (1969) denounced what he called “gigantism” (i.e. the big city, the big factory, the accumulation of capital, the development of advertising and bureaucracy, etc.) and the power of *technique* as the key of modernity, a theme further studied and developed by Ellul (1988). Technique, as defined by Ellul, refers to the totality of methods rationally arrived at and having absolute efficiency in every field of human activity. It produces alienation effects for all people in all the aspects of their life to the extent that the modern man ends up becoming the instrument of his own instruments. In the view of Ellul and Charbonneau, the solution was striving for an ascetic society where quality of life and solidarity among people, instead of productivity and individualism, become the dominant social values. This perspective was not only abstract; the two friends regularly organized study-camps for young people in mountainous regions of France and Spain. At this time, Ellul also came up with the motto “think globally, act locally”.

According to Latouche (2006a), the contemporary de-growth movement *à la française* is born at the junction of two movements: one coming from political ecologists, e.g., Grinevald (1975, 2006) and Gorz (1975, 1988, 2007), and emphasizing the effect of productivism in critical environmental problems, and the other coming from the criticism to the concept of development, e.g., Latouche (1986, 1989, 1993, 1999), Partant (1978, 1988) and Rist (1996).

The first key line of thought is associated largely with the influential work of Georgescu-Roegen, considered “the father of de-growth” (Clémentin and Cheynet, 2003:11). De-growth, as the English translation of *décroissance*, is associated with the notion of “declining” as used by Georgescu-Roegen’s (1975:369) paper “Energy and economic myths” in which he debated the report on “Limits to Growth” by Meadows et al. (1972) and the thesis about the steady state economy championed by Herman Daly (1971, 1974). Georgescu-Roegen’s thesis about the necessity to understand thermodynamics to think adequately on economics was endorsed and discussed by important French authors like André Gorz (1975) and René Passet (1979), who was another pioneer in Ecological Economics (Röpke, 2004). The French translation and edition by Grinevald and Rens of a selection of Georgescu-Roegen’s 1979 writings with the title “*Demain la décroissance*” (“*De-growth for Tomorrow*”), a book reprinted in extensive versions in 1995 and 2006, had a very important impact in his popularity in the academic and social movement circles in the Francophone world.⁴

The second source of inspiration of the French de-growth movement is less influenced by ecological economic thinking. Ivan Illich (1973, 1974, 1981) is probably the main reference for the culturalist

¹ Examples are recent books, e.g., Bernard et al. (2003), Ariès (2005, 2007), Di Méo (2006), Latouche (2006a, 2007a,b) and Cheynet (2008), academic papers, e.g.; Duval (2006), Grinevald (2006), Flipo (2008), Harribey (2007, 2008), Latouche (2003, 2006b, 2007c) and even a new journal (*Entropia*) that are having a significant intellectual impact in France and also in some Spanish speaking countries (Pallante, 2005; Ecología Política, 2008).

² His texts about de-growth have been rarely translated into English. See: Latouche (2004a, 2007c).

³ Such texts are still far from closing the discussion on the meaning of sustainable development as it is continuously re-defined and applied in endless contexts (Zaccà, 2002; Hopwood et al., 2005).

⁴ Grinevald’s role in the diffusion of Georgescu-Roegen’s ideas in the Francophone world must be stressed. The two men met in Geneva in 1974 and a strong friendship began at this time. From the mid-1970’s, a series of Grinevald’s papers (1975, 1976) began to introduce Georgescu-Roegen’s ideas in France, Switzerland and Belgium. This was also favoured by the invitation to Georgescu-Roegen as a visiting professor at the University of Strasbourg in 1977–1978. Georgescu-Roegen, who spoke perfectly French, approved the use of *Décroissance* in Grinevald’s and Rens’ edition of his work.

intellectual criticising the notion of development, influenced by the work of the anthropologist Marshall Sahlins (1972), whose analysis attempted to modify the vision of affluence and scarcity adopted by most economists after Adam Smith. Illich (1994) also acknowledged the importance of Ellul's ideas and criticized modern institutions, including education and medicine, arguing that they tend to create and multiply impediments to people's autonomy. Illich instead promoted a vision of a 'modern subsistence society' as a way of life in a post-industrial economy where people would be less dependent on the market and the State and technology would be developed to generate what he coined as 'genuine use values' (Illich, 1981).

This second, culturalist pillar of the de-growth movement requires to transpose Sahlins' idea of primitive societies onto modern Northern societies.⁵ But this is often criticized. In response, the de-growth movement argues against the 'imaginary economics' that sustains the 'growth fetish' existing in the dominant economic development paradigm (for example, that of the World Bank) by commodifying relations among humans and between humans and nature (Latouche, 2006a:38). In this vein, it is argued that the main problem with the idea of sustainable development is not with the idea of sustainability but with that of development itself. This resonates with existing 'post-development' criticisms (Zaccai, 2003).⁶ Hence, it can be said that the de-growth movement adheres to the idea of establishing other social ideals rather than calling for development as such. In doing so, it urges re-examination of the dominant economic values of affluent societies. In this context, de-growth thinking is centred on the question of how to be able to enjoy a 'good life', an ancient philosophical goal which finds an echo in Georgescu-Roegen's (1975:353) concept of "enjoyment of life".

This search for happiness comes in a variety of forms, depending on the cultural context. In Northern countries, as in Ellul and Charbonneau's view, it is associated with an attitude of frugality or "voluntary simplicity" (Latouche, 2006a:101, 2007c:182). It is also linked with calls for a disassociation with consumerism as prerequisite for voluntary simplicity, which in turn requires reducing the time allocated to and the sharing of labour, better selecting technical innovations and re-localising economic activities (Latouche, 2004a,b; Recio, 2008). From a more environmental perspective, the de-growth movement calls for a decrease in material and energy consumption in countries that exceed their "allowable ecological footprint" (Ridoux, 2006:92) and acknowledges the allowance for Southern countries or societies, where ecological impacts are low relative to their biocapacity, to increase their material consumption and thus their ecological footprint, an idea explicitly favoured by Georgescu-Roegen (1975:378).⁷

3. Sustainable de-growth in ecological economics and its relations to the steady state economy

Aside from, or coupled with the modern notion of de-growth à la française, it is possible to find de-growth precursors in Europe in the 19th Century such as John Stuart Mill and William Stanley Jevons. But it was the highly influential works of the early 1970s by Howard T. Odum

(1971), Dennis Meadows and collaborators (1972) and Ernst "Fritz" Schumacher (1973), to some extent inspired by the Gandhian economist J.C. Kumarappa's "Economy of Permanence",⁸ and the ideas from the 1950s and 1960s of Karl William Kapp, Nicholas Georgescu-Roegen, Kenneth Boulding, Herman Daly and Robert Ayres, which together created enough intellectual nourishment to form the field of ecological economics. All of these authors understood the economy in physical terms and many suggested the need for social change criticising mainstream economics and its focus on chrematistic growth.

In this context, as mentioned in the previous section, Georgescu-Roegen (1975) had already started the discussion on economic de-growth. After the Brundtland's report, Georgescu-Roegen (1993) championed the idea that the term sustainable growth is an oxymoron; the term sustainable development, he argued, can only make sense if development is associated with no growth in the scale of the economy. However, ecological economics and industrial ecology have been attesting to correlations between the use of materials and energy and economic growth.

The use of non renewable fossil fuels and of the products of current photosynthesis as shown in the increased HANPP (human appropriation of net primary production) (Imhoff et al., 2004), attest to the increasing scale of the economy in its physical dimension. From an ecological perspective, de-growth implies physical de-growth or downsizing economic throughput as measured by material and energy flows. The debate rests on how much downsizing is necessary for sustainability and whether there is an optimal scale of the economy.

On these questions, the modern de-growth movement disagrees with the steady state economy (SSE) line of thought held by many ecological economists. While the de-growth movement is mainly associated with the Francophone world, SSE is articulated mostly in North America. For instance the Center for the Advancement of the Steady State Economy (CASSE) outreaches the messages in favour of SSE as implying a "relatively stable, mildly fluctuating product of population and per capita consumption" in the economy (Czech and Daly, 2004: 254). In practice this implies aiming at stabilizing the economy in the short run (in the political and economic sense of approximately one decade) around a slightly varying level of capital stock, non growing human labour (population) level as well as an almost constant rate of throughput and the production of socially valuable goods and services under a given technological framework. In the view of SSE, technological progress would increase the ratio of GDP per unit of throughput although limited by (i) rebound effects (see e.g., Polimeni et al., 2008), (ii) investments in innovation which spurs economic growth (Czech, 2003) and ultimately (associated with a geological long-run period) by (iii) the law of thermodynamics (Georgescu-Roegen, 1993). What is then the differences and linkages between the SSE and de-growth standpoints?

Against John Stuart Mill and Herman Daly's (1971, 1974) views on the need for a steady state economy, Georgescu-Roegen fervently argued in favour of retracting consumption levels in countries such as the US which he understood was already consuming excessively and would inexorably end up in a situation now described as "descend capitalism" (Odum and Odum, 2006:28).⁹ However, according to Daly (1992) an optimal scale of the economy is one that is sustainable therefore not eroding the environmental carrying capacity over time and one where at the margin, economic activity provides the same

⁵ Sahlins (1972) argued against the idea that primitive societies are symbols of misery. Instead he considers that they are affluent societies because they satisfy their frugal needs with a few hours of work, thus avoiding increasing production and exchanges in response to unsatisfied needs, which would ultimately create social divisions between rich and poor.

⁶ A symposium was organized in Paris in 2002, with the support of UNESCO, titled "Défaire le développement. Refaire le monde" (Appfel-Marglin et al., 2003). Illich, Latouche and Rist were present at this meeting. 'Post-development' has had a greater international resonance than de-growth, see e.g., Rahnama and Bawtree (1997). See also Zaccai (2003) for an analysis linking post-development, development, and ecological critics, focusing especially on the work of Wolfgang Sachs.

⁷ According to Latouche (2005:64) it is reasonable that Africans with small ecological footprints "be given an unquestionable right to increase it in order to put up a certain kind of growth, in the form of increasing consumption and production, within a more equitable approach to the global share of resources" (own translation). See also Latouche (2007b) for similar statements.

⁸ See: Govindu and Malghan (2005).

⁹ Interestingly although, Daly and Georgescu-Roegen agreed on the desirability of a decrease in the human population, an uncomfortable topic for some de-growth theorists who are mostly anti-Malthusian within the Marxist left. However, Georgescu-Roegen and Daly were not in agreement on the issue of universal freedom for population migration. While this was supported by Georgescu-Roegen, Daly's proposal (shared by Boulding) of tradeable birth-permits was, in its turn, not favoured by Georgescu-Roegen (Kerschner, 2010).

level of productive benefit to society compared to the cost of degrading ecosystem services from further growth in throughput.

Against the apparent confrontation between the notions of SEE and de-growth, one can also see them as being compatible and complementary. As Kerschner (2010) points out, economic de-growth rather than a goal in itself could be understood as the industrialized North's path towards a globally equitable SSE. De-growth in throughput in the global North, and a decrease in world population (after an estimated peak around 2050) might lead towards a steady state economy. This situation could be defined as a quasi-SSE resting in a dynamic equilibrium which may still be approximated even if never totally achieved as a goal (Daly, 2007 in Kerschner, 2010). That is, some sectors of the economy could grow while others would decline within a steady state framework.

The two intellectual currents of sustainable de-growth and steady state economy thus might be seen to agree with the idea that societies will find it problematic to undergo sudden de-growth, for instance in terms of GDP, or perhaps to a lesser extent in terms of energy and materials of say, 30–40% even if for GHG emissions science mostly argues in favour of this option in the very short run (Martínez-Alier, 2009). The option would thus be for 'some de-growth' and then a mildly fluctuating steady state, avoiding rebound effects as technological efficiencies increase.

The corollary is that neither economic growth nor de-growth can be seen sustainable. Instead the goal may be to attain after a post-de-growth transition a globally equitable steady state economy as the sustainable alternative in a practical, policy-relevant time frame. This vision may fruitfully open the prospect for political synergism between the de-growth and steady state camps and for de-growth grass-root movements' embrace of the notion of a globally equitable quasi-steady state economy while keeping their stand against Georgescu-Roegen's *growthmania* or Latouche's *tyranny of growth* (see: Kerschner, 2010).

Taking a supplementary argument, the de-growth camp would, in addition to physical critical issues, argue that downsizing is not just a matter of physically reducing throughput as it also involves decolonizing minds from economism (Latouche, 2006a,b). This echoes in most ecological economists' views that conventional economic accounting is false not only as it disregards the physical and biological aspects of the economy but because it cannot reflect societal well-being.¹⁰

For the most part, however, while sustainable de-growth in ecological economics still centers on the development of physical indicators and measuring well being and sustainability, there is perhaps less emphasis on questioning the notion of 'need', the subject of a heated debate in the 1930s and broached in Keynes's texts. The de-growth movement can be seen as promoting the debate of 'needs' in ecological economics and follow the path of Manfred Max-Neef (1991) as a result of taking into account environmental issues and the global distribution of wealth (Vivien, 2008).

It is also possible that the emergence of the de-growth discourse on the Aristotelian 'good life' (as the World Social Forum proclaims) guided by *oikonomia* rather than chrematistics will affect ecological economics approaches when tackling the idea of sustainable de-growth (Martínez-Alier, 2009). Some of these thoughts resonate and are shared by international environmental and social movements. This is particularly true for those social movements organized around the idea of environmental justice with a clear objective of an economy that sustainably fulfils the food, health, education and housing needs of all people and provides for as much *joie de vivre* as possible.¹¹

¹⁰ Interestingly, a much cited recent report by the blue ribbon Commission on the Measurement of Economic Performance and Social Progress, with Nobel laureates Joseph Stiglitz and Amartya Sen and created in 2008 on a French government's initiative, echoes these ideas, admittedly with some delay.

¹¹ An example is that of the use of the Quechua expression *sumak kawsay* (good living) in the new Constitution of Ecuador of 2008.

4. Comparing de-growth à La Française with sustainable de-growth in ecological economics

The preceding section has shown some common objectives and ideas between the de-growth movement and the ecological-economic idea of sustainable de-growth. It has also discussed ways by which de-growth and a quasi-steady state economy may be fruitfully made compatible through a common framework. However, it is important to note that the main thinkers of de-growth à la française develop points of view and references that are still quite different from those generally found within ecological economics.¹²

A first specificity of the de-growth movement (*à la française*) refers to the fact that in its origins from the 1930s to the 1970s, the French intellectual context was strongly influenced by Marxism.¹³ Not surprisingly, French de-growth thinkers consider economic questions to be political questions. In their writings, we find the aspiration to get rid of capitalism which destroys man and nature, but without explicitly aspiring to construct a 'radiant socialism' (see e.g., Ariès, 2005). Instead their keyword is autonomy: autonomy of individuals, small groups, regions, and the like.

A second intellectual specificity of de-growth à la française is its constant reference to economic anthropology. For instance Gorz (1973) focused mainly on the invention of modern work structures and the division of labour while Grinevald (1975, 2006) discusses the construction of the Industrial Revolution's idea and, as an extension, the way the actual paradigm of development came to the fore. Together with Latouche (2005), the position of the French de-growth thinkers can be interpreted as being anti-economics in the sense that economics is viewed as the 'dismal science' from which we need to escape. However, the idea of de-growth economics is still little developed. This is to a large extent the reason why the ecological economics critique of neoclassical economics is keenly supported by the advocates de-growth à la française. As a result we would argue that there might be a need in the de-growth camp to better clarify the distinction between the idea of 'stepping out of economics', (Latouche, 2006a:169) and 'stepping out of economism' (Ariès, 2005:77; Ridoux, 2006:38).¹⁴

Except for the international conference on "Economic de-growth for ecological sustainability" held in Paris in April 2008 (see: Mylondo, 2009; Schneider et al., 2010), the main theoretical debates between de-growth à la française and economics have been held within the French *Régulation* economic school¹⁵ mostly seen in the work by Guibert and Latouche (2006) who try to update Marxist theories. The main debates focus on unemployment, especially on the impact of the reduction of labour time on the creation of jobs, and on the importance of public services, the latter being an important political subject in France (Di Méo and Harribey, 2006).

The recent recognition of the existence of *Régulation* theory by ecological economics (Zuindeau, 2007) is a first step to create, even in an indirect way, a dialogue between ecological economics and the French de-growth movement. The global economic crisis and the growth of unemployment are elements that can contribute to this dialogue. Let us add here that it has been noticed ever since the "Limits to Growth" report that renouncing growth means using more regulation and fostering ethical progress. The disadvantaged cannot

¹² Until recently there was poor intellectual communication across the English Channel on the French meaning of "De-growth". For instance in Jackson (2009), the concept is rarely mentioned.

¹³ Marx is an important reference to understand the work of intellectuals such as Ellul, Gorz, and Latouche; even if these authors may criticize Marxism, for different reasons.

¹⁴ Latouche for instance sometimes embraces the use of economic incentives such as eco-taxes to alter human behaviour, a recommendation which is not very different from proclaiming the usefulness of market based instruments to curve environmental degradation.

¹⁵ *Régulation* theory is a particular approach of the institutionalist movement, mainly interested in macroeconomic issues, which appeared in France at the end of the 1970s. See: Zuindeau (2007).

just wait and hope for the trickle-down effects from economic growth. Actual sharing of benefits and thus of property rights between North and South is needed for a fairer notion of sustainable development. This profound observation can be illustrated in many contexts, but also sheds light on the political difficulties of the de-growth enterprise.

As mentioned earlier, de-growth *à la française* is fundamentally a movement aiming at changing the nature of modern society (Latouche, 2006b). The theoretical principles form only one pillar of the movement. There are two others key pillars: an activist one, supported by social grass-root movements (see special issue in *Ecología Política*, 2008), and a political one which is occupied in France by two hotly debated questions, i.e. is de-growth a left- or right-wing movement? Is it necessary to create a de-growth political party? (Latouche, 2006a:269; Cheynet, 2008:135). The three pillars are not strictly linked nor integrated in a political programme, a clear doctrinal corpus, or a register of actions and experiences. This locates the de-growth movement far from a *De-growth Internationale*.

5. The lifecycle of the sustainable development paradigm: a fading adage?

In the social arena, the campaigners for de-growth tend to actively shy away from the notion of sustainable development *à la* Brundtland report, and even more in its ecological modernization interpretation endorsed by 'green companies', viewing it as a false and unfeasible project that delays the urgent changes needed, as for instance in the case of global climate change.

There are a number of reasons for the weakening of the appeal of the concept of sustainable development that has largely dominated ecological economics and wider environmental and social discourses over the past two decades (Zaccaï, 2002; Hopwood et al., 2005; Vivien, 2008). This weakening no doubt contributes to the success of flourishing works and initiatives under the banner of de-growth. This section looks at the future of de-growth as a potential emergent paradigm appealing to many sectors of society in lieu of the concept of sustainable development.

Although some progress may be detected for particular objectives arising from the sustainable development paradigm, the general picture with regard to environmental pressure, even when depicted by official agencies, continues to look bleak at global and even regional levels (OECD, 2008; EEA, 2009). The final words of the summary of the Millennium Ecosystem Assessment (MA, 2005) make explicit that the changes that could reverse the increasing damages to ecosystems and biodiversity are not under way. The international official objectives of halting biodiversity loss in 2010 are not being achieved in Europe and elsewhere. Regarding the issue of global climate change the latest findings indicate, report after report, towards more severe and bleaker assessments if the current weak policies for tackling the problem are not modified. Lack of agreement on GHG emission reductions at Copenhagen in December 2009 is in stark contrast to the main objectives suggested by the IPCC, such as peaking global CO₂ emissions within the next years and decreasing them by 80% by 2050 in rich countries. Actual known trends in energy consumption signal that the world is moving in another direction. At the emission rates of 2007, leading to an increase of approximately 2 extra ppm per year, the concentration of CO₂ at 450 ppm in the atmosphere might be reached within 30 years. These are inescapable uncomfortable facts (Walker and King, 2008).

These flagrant shortcomings cast a profound doubt on the achievement, within current policies of the *double convergence path* promoted by sustainable development: convergence between ecological, social and economic dimensions of development and (contraction and) convergence between the impacts of Northern and Southern countries in order to be more environmentally sound and economically just.

In social terms progress toward meeting the Millennium Development Goals is significantly slower than expected (UN, 2008). In industrialized and rapidly industrializing countries growth in material and energy consumption appears unsustainable in the long run, and other countries officially aspire to the same model. During the 1990s, this pessimistic conclusion was tempered by the idea that we had to allow some time for policies to be enacted and to show results, as such structural changes could not be made overnight. At the Johannesburg World Summit on Sustainable Development in 2002 and during the years following it, the difficulty of obtaining overall results was somewhat concealed by partial success stories, or 'positive initiatives' put in the forefront as an effort to maintain commitment, i.e., 'Type II' at Johannesburg akin to 'best practice' in EU environmental programs. Nowadays skepticism has increased about the usefulness of a sustainable development discourse which, more than 20 years after its launching and universal support, still leaves us largely with the same problems as, or worse than, at the start of the sustainable development era.

On the other hand, the notion of development has gained support when differentiating it from economic growth (e.g., Escobar, 1992; Sachs, 1992; Noorgard, 1994). A notable advancement in separating development from economic growth is due to the visibility of the Human Development Index. Moreover, there is a strong body of cultural criticism (embodied in the term "post-development") of the notion of development that denounces the identification of development to the still dominant fetish of economic growth within the mindset of development economists and policy makers. The de-growth movement vigorously supports the "post-development" critique. Its emergence is a sign of for a low tide in the idea of sustainable development, or at least of a rethinking of its usefulness.¹⁶

In the context of the economic crisis of 2008–09, the terms crisis, recession and downturn resound frantically in the media, while the term sustainable development has somehow been eclipsed in the storm of finance fluxes. The new global economic context tends to make many actors reconsider their notion of development. In a way, the de-growth movement had already anticipated the potential intertwined social, economic and environmental crises such as the ones in which we are immersed, in contrast to the idea of 'soft landing' and convergence dominant in the mindset of sustainable development advocates.

In eyes of de-growth proponents, economic growth, even if disguised as sustainable development, will lead to social and ecological collapse. It is thus better to promote different social values and to start adapting to forced de-growths that are likely to occur, in order to find a prosperous way down (Odum and Odum, 2006). To a certain extent we are witnessing here a turn of paradigms, as these have their own lifecycles dependent on the soundness of the theories and analysis conveyed by the concepts and also on what happens in a society.

6. Concluding remarks: what future for sustainable de-growth as a driver of change?

For many reasons expressed in this paper, the forces originating from the intellectual French de-growth movement and the wider sustainable de-growth concept echoed by some ecological economists are gaining attraction against the mainstream ideas ingrained in the sustainable development paradigm. But, beyond a cluster of theoretical works and local grass-root initiatives, can ecological economics

¹⁶ Of course, the culturalist critique of development is not only French (see for instance Ashish Nandy's influential work in India).

formulate the conditions and propositions needed to successfully make the changes advocated by the de-growth movement? The answer can only be partial because of the fragmented body of analyses already described and the incipient state of the political strategy of the tenants of this movement. Nevertheless, this question is crucial for considering the validity of concepts (i.e., sustainable development, de-growth) that not only hold by their intellectual framing but also by their capacity to contribute to the social changes that they advocate. In this juncture we formulate the following propositions.

While Europe already agreed (at least until Copenhagen in December 2009) that CO₂ should decrease by 20–30% of 1990 levels by 2020 and that this is only a beginning, and while it is still conceivable that the US and other countries might also join in a policy of CO₂ emission reductions, the rest of the environmental impact indicators should also be reduced in proportions to be decided by scientifically informed socio-political debates. As a contribution to a research agenda, we believe that within ecological economics more social analyses should be used to understand the conditions for reaching these objectives. In addition, there is room for new technical work about the profile of a society with much less material consumption, especially in countries where the path of industrialization is still strongly following its course. One can notice at this point that, contrary to many sustainable development fields of research, there has not been yet much technical work in the de-growth movement as reflected at the First International Conference on Degrowth in Paris in April 2008.¹⁷

It can be assumed that by reducing the physical indicators of throughput, the magnitude of macro-level chrematistic indicators such as GDP would also be reduced. This may generate social disruptions given our locked in social relations (e.g., urban transport infrastructures linked to job locations) as suggested by Latouche (2004b), and evident for many. Further, if the economy stops growing but labour productivity does not decline, this would result in growing unemployment. It implies that, to maintain the wellbeing of societies, there is a need to reduce the legal working time or/and to delink citizens' revenue from wage employment to a greater extent than is currently done.¹⁸ In any case, to gain attraction in political and social debates, propositions pertaining to the relations between de-growth, remuneration, employment and work must be extensively discussed. Similarly, the implications of economic de-growth for the monetary and financial system must be analysed.

It is also pertinent to strive for a greater coherence on what is meant by socially sustainable economic de-growth, both from a more theoretical angle and as associated with grassroots social movements' calls for local and individual action. This call for self-engagement is not without links to the grassroots activism present in ecological movements since the late 1960s. The strategy by which such local initiatives may foster a wider social change in our time, for instance through effective coalitions at the local, national and international levels, remains unclear at the moment.

From an ecological economics perspective, for sustainable de-growth to be successful one important step would be to provide a platform on which social movements from the North and the South, including conservationists, trade unions, small farmers movements and those movements from the South that defend a low environmental impact economy, can converge. For example, there can be a confluence of conservationists concerned with the loss of biodiversity, of the many people concerned with climate change who push for renewable energy, of the socialists and trade unionists who strive for more economic justice, of urban squatters who preach 'autonomy',

¹⁷ A selection of the papers of this conference has been published in French by Mylondo (2009) and by the *Journal of Cleaner Production* (Schneider et al., 2010) The Second International Conference on Degrowth has taken place in Barcelona (March 2010), and built further on these topics.

¹⁸ A corollary is that the notion of employment should be enhanced to include non-remunerated jobs in the domestic or volunteer spheres.

agro-ecologists, neo-rurals, and the large peasant movements, the pessimists (or realists) on the risks and uncertainties of technical change (post-normal science), and the movements of the *environmentalism of the poor* including indigenous movements that demand the preservation of the environment for livelihood (Martínez-Alier, 2008:32). However, it has to be understood under which conditions such coalitions can provide more results than the sustainable development approach, also largely based on coalitions (Zaccaï, 2002).

In a final comparison between the two paradigms (de-growth leading to a quasi-steady state, and sustainable development) there is a clear disadvantage of the first one by its confrontational position towards the fundamental powers of our societies. As Ayres (2008:290) puts it: "none of the important economic actors, whether government leaders or private sector executives, has an incentive compatible with a 'no growth' policy."¹⁹ This certainly might explain why to this point, we see very few institutional actors endorsing de-growth and steady state discourse alike, as well as a lack of organized political programs towards a de-growth transition, contrarily to programs and strategies inspired by sustainable development. At the same time an advantage of putting forward questions about scale, downsizing, de-growth, or about the ethical aims of a society, instead of skipping them out from technical and economic debates, could be to provide us with more powerful tools in the face of the crises we confront.

Last but not least, while the de-growth thinking clearly delinks the notions of sustainability and growth, it is important to understand that the notion of economic growth should not be reduced to the growth of chrematistic measures of the economy such as GDP, even if this is highly correlated with the reduction of material and energy flows or throughput. The concept of growth is in itself vague and polymorphic, thus bringing such ambiguity to the term 'de-growth.' Unraveling the notion of growth in complex coupled ecological-economic systems should be a priority for enabling a fruitful dialogue towards enriching the sustainable de-growth idea. Otherwise, sustainable de-growth will not go beyond becoming a new 'anti-fetish', becoming a fetish in itself nonetheless.

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¹⁹ See also Ayres (1998) for an impressive analysis of the trends possibly leading to "the end of the growth paradigm" (also Ayres, 1996).

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