1. Sustainability: dynamics, pitfalls, and transitions

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INTRODUCTION

The holistic notion of sustainable development (SD) — i.e. the integrated promotion of social well-being, economic prosperity, and safeguarding of the natural environment — arose with the first signs of the ecological crisis in the 1960s and 1970s. However, the concept acquired consistency and visibility, above all, with the publication of the Brundtland Report, which defined its scope: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987, 43). Later on, Agenda 21, the action plan emerging from the Earth Summit (UNCED 1992) contained proposals for action, promoting an idea of governance for sustainability (i.e. with greater involvement and participation of all interested parties, from international institutions to citizens) and taking into account the basic prescriptions of the Brundtland Report: to provide for current and future human needs and, at the same time, to respect ecological limits.

This is accordingly a polysemic idea that combines two different areas: development (which promotes quality of life) and sustainability (which makes that objective viable in the long term). Given that the concept of sustainability originates in the biological and ecological sciences, it was created to describe the limits to the extraction and consumption of natural resources that ensure their underlying ecosystems are not threatened. In the social science field, in line with a practice started in the Bruntland Report, the term is usually used as a result of SD or as a synonym for it. In the latter case, the focus is directed to the relationships between natural, social, and economic capital, highlighting the conditions under which such complex and interdependent relationships may last (Vos 2007), but opening up myriad possibilities of achieving that durability.

In effect, "the idea of sustainability assumes that there is some appropriate convergence of economy, environment, and equity that we should try to achieve. But whose convergence? If the convergence were based on the very high-consuming developed world model, the world would be depleted of resources very quickly. But if the world were to strive towards a model of subsistence sustainability, there would be an outcry from the more developed nations" (Brinkmann 2016, 233).

SD has thus given rise to considerable criticism, with many authors arguing that the need to restrict production and consumption practices has basically

been ignored. Even if, as Herman Daly stated in his seminal 1990 article, development does not mean growth – "growth is quantitative increase in physical scale, while development is qualitative improvement or unfolding of potentialities" (Daly 1990, 402) – the idea of development has become "distorted" through the imposition of economic growth as an unquestioned social objective: "as countries experience increased growth their productive capacity expands and they 'develop'…" (Redclift 2005). In other words, this close association, which stubbornly persists at least in political discourse and the social imaginary, has produced a kind of vicious cycle of inoperability, based on the subordination of SD to the market imperative i. e. "grow or perish" (Flinders 2012).

Perhaps for this reason the expression "sustainable development" has often been rejected in favour of the simpler "sustainability". However, it should be emphasised that despite the different origins and semantics related to growth – i. e. "sustainable development assumes that growth is possible and desirable, (…) sustainability does not assume that economic growth is essential, nor that economic growth will inevitably result in net environmental harm" (Redclift and Springett 2015, 113), both terms see the economy, society, and the environment as three interdependent aspects of the same reality.

The way the transition to more sustainable patterns of development is viewed and implemented depends, for that reason, on the experiences and opportunities those patterns provide, and the extent to which they commit to challenging "dominant values and goals, as well as current practices of development" (Pelling, O'Brien and Matyas 2015, 124-125). Thus, as Tim O'Riordan emphasises, the years ahead "will make or break the effectiveness of any meaningful transition to sustainability no matter how this deeply ambiguous concept is defined" (O' Riordan 2014, 497).

This chapter will accordingly, in section one, analyse social archetypes, the discrepancies between discourses and practices, and the slippage factors that have characterised SD. Section two regards some indicators (e. g. trends in the ecological footprint and social inequality) that reflect the dynamics of global (un)sustainability. Section three makes an overall assessment of sustainability today as a key programmatic concept for transforming society. The conclusion seeks to identify what conditions will make sustainability possible in the critical circumstances facing humanity in these early decades of the twenty-first century.

FROM ARCHETYPES TO SLIPPAGE

Considering the current global situation and indicators relating to aspects of SD, we may state that most of its ideals went by the wayside. For some, moreover, SD was a kind of "white blackbird, which no-one has ever found" (Latouche 2004, 26-27). Behind poor results dissected below, there are a few archetypes (i. e. sets of beliefs, interests, and basic social values) that underpin attitudes towards sustainability and/or SD that do not always converge.

In day to day life, these archetypes – (a) dominant social paradigm, (b) thin, and (c) thick versions of sustainability (Vos 2007) – influence choices and boost positions on a pathway that has been delimited by slippage factors such as: (i) the excessive attachment of the idea of sustainability to the environment, which makes it difficult to see the problems in an integrated way; (ii) the trivialization of the terms SD and/or sustainability, which drains them of meaning and effectiveness; (iii) their subjugation to economic growth, which continues to "colonise" the social imaginary in modern life.

ARCHETYPES OF SUSTAINABILITY

Let us begin therefore with social archetypes, adopting the advanced definition suggested by Caroline Myss. According to this author, "although archetypes are collective symbols (…), they can also speak to us individually, as personal archetypal patterns that are the foundation of our beliefs, drives, motivations, and actions, organising and energising all our relationships in life" (Myss 2013, 2-3). Table 1.1 shows those foundational models of behaviour, offering in schematic form three possible types of archetypes of sustainability, as put forward by Robert Vos (2007).

The first approach is based on the Dominant Social Paradigm, focused mainly on the growth imperative and anthropocentric values in which environmental issues are of only residual significance among the most basic concerns. In this approach nature is basically seen as a source of resources and raw materials, and techno-scientific rationality emerges as an indispensable and effective ally in overcoming the environmental difficulties imposed by development. This sceptical position in relation to the existence of an ecological crisis assumes that resources are infinitely renewable, and that the human capacity to overcome the above-mentioned difficulties is likewise infinite. Hence, there are no limits to economic or demographic growth. Issues of social equity are

Table 1.1 *Archetypes of sustainability*

	DOMINANT SOCIAL PARADIGM	THIN VERSIONS OF SUSTAINABILITY	THICK VERSIONS OF SUSTAINABILITY
ONTOLOGY OF NATURE	Nature as raw materials for the human economy	Some intrinsic values recognised in nature	Many intrinsic values recognised in nature
SUBSTITUTION FOR NATURAL CAPITAL	Infinite substitution	Some natural capital cannot be substituted	No declines in natural capital
ECONOMIC GROWTH	No limits	Win–win relationship emphasised	Must slow and reverse growth
POPULATION GROWTH	No limits	Population growth must be accompanied by per capita offsets	Must slow growth and achieve declining populations
ROLE OF TECHNOLOGY	Technological rationality	Cautious scepticism	Deep scepticism
SOCIAL EQUITY	Left to the market	Takes connections into account	Attention to redistribution
STAKEHOLDER PARTICIPATION	Decisions by experts	Collaborative stakeholder processes	Grassroots democracy

Source: Vos (2007, 336).

not related to ecological issues and, since the latter are not a core concern, their resolution is left to techno-science and the laws of the market. In this line of thinking, decisions are mostly reserved for technicians and the politicians they advise, with no room for public participation and sharing in decision-making, which the Brundtland Report (WCED 1987), the Rio Declaration, and Agenda 21 (UNCED 1992) all clearly advocate.

The *thin* version addresses sustainability in a pragmatic way. This is a reforming and conciliatory vision that seeks to achieve change based on close co-operation between the various seats of power and civil society and, in this way, to influence decision-making processes. This approach awards nature intrinsic value, but subject to the social and economic values on which the success of any action leading to conservation and/or protection of nature's values depends. Arguing above all for "win-win" situations, this approach recommends paying special attention to social inequalities (invariably tied to environmental inequalities) and appeals for the involvement and participation, as far as possible, of all parties and interests present. Economic and demographic growth should therefore be seen in that context of reconciling interests, in

which they take on an ambiguous role together with science and technology. On the one hand, these drivers of development are seen as being responsible for current ecological problems, albeit with varying degrees of responsibility. On the other hand, there is recognition of the crucial role they may play in some cases in obtaining solutions to those same problems.

The *thick* and most radical version of sustainability adopts demanding positions, above all in connection with the need to protect the environment and fight for the maintenance and viability of ecological conditions. In general terms, it assumes that there is greater difficulty in reconciling environmental and socio-economic interests. In this approach, nature has an intrinsic value, not dependent on human interests. Accordingly, there is no belief in any prodigious solutions put forward by science and technology to maintain ecosystem equilibrium. Rather, it advocates a re-orientation of the economy, the system of production, and the consumer society, with a view to slowing down or even reversing economic growth; closer attention to demographic issues which, in large measure, are associated with those of development; and an effective redistribution of resources to provide for the needs of less favoured nations and communities. To this end, it is deemed essential to have a policy of broad and coherent participation in decision-making processes, on the assumption that building public consent, by means of participative and deliberative methodologies, is fundamental in ensuring the success of restrictive measures that are not always easy to implement (Jackson 2009).

Assuming these archetypes are not watertight, the SD model chosen will depend on the interplay of power, interests, and socio-cultural circumstances, based on many possible configurations (Guerra 2011). Moreover, it is this elasticity of the concept that has enabled it to become ubiquitous, while at the same time being devalued in theoretical and normative-programmatic terms (Sachs 2015). The worsening of the ecological crisis over recent decades has contributed to this, alongside the albeit intermittent socio-economic crisis (Schmidt and Guerra 2016). As Olivia Bina states, "the transition between millennia was marked by the exacerbation of both. In developed nations economic growth (in terms of GDP) tumbled, unemployment and inequality of wealth and income reached new heights, producing a knock-on effect on emerging economies" (Bina 2013, 1023).

Indeed, the Dominant Social Paradigm, living up to its name – which assumes the growth and centrality of humanity in the world as incontestable values (Dunlap et al. 2000; Dunlap 2008) – has tended to prevail, involving

certain constraints and barriers that have had significant slippage effects, such as those we analyse in greater detail below.

PREDOMINANCE OF THE ENVIRONMENT

Environmental concerns began to acquire some visibility in society from the 1960s on, when the first avowedly environmental disasters occurred, signs of dwindling resources emerged, and it was recognized "that human activities are altering the ecosystems on which our existence – and that of all other living species – is dependent" (Dunlap et al. 2000, 426). This confirms the idea that we are undergoing a societal reassessment of our worldviews, questioning the imbalances in our relationship, as humans, with the physical environment. This new social paradigm – the New Environmental Paradigm – has taken hold in most modern societies, albeit at different speeds and in a non-linear way, progress alternating with setbacks (Dunlap et al. 2000).

Be that as it may, as a result of the "rapidity of change and the speed with which new situations are created [and] follow the impetuous and heedless pace of man rather than the deliberate pace of nature" (Carson 1962), concern with environmental decay has become the conduit and bedrock of the idea of sustainability. Publication of Rachel Carson's (1962) "Silent Spring", the "*United Nations Conference on the Human Environment*" in Stockholm (UNCHE 1972), and publication of *The Limits to Growth* (Meadows et al. 1972), are three milestones in the emergence and gradual consolidation of new ecological values and the resulting rethink of Humanity's place in a world of planetary limits.

Certainly, it was not the visibility and prominence of environmental issues that alone blocked implementation of SD, given that there is no future without the ecological conditions to sustain it. But the projection they achieved relegated other aspects – societal, institutional, economic – to the background, or at least circumscribed them to disconnected action plans, making it difficult to see the required overall picture. As a result, the notion of sustainability often coincided with "environmental sustainability" and the concept of SD ended up having an influence primarily on global environmental policies and through them on national environmental policies.

Although there is a degree of consensus that the societal dynamics that bring about environmental decay have direct implications for public health, societal well-being, and the economy – affecting above all countries and groups

less well prepared to face up to the challenges of that environmental decay – the trend over recent decades has been for an insistent and counterproductive separation of these areas. While on the one hand it has always been argued that "sustainability is not exclusively or even primarily an environmental issue" (UNDP 2011, iv), on the other hand it is undeniable that many practices and "theories on sustainability view equity and the plight of the poor as separate and unrelated" (UNDP 2011, 19). This means, without denying the central importance of environmental issues in modern societies, that the holistic (and overlapping) socio-environmental thinking behind the original idea of SD has not prevailed. Instead, disconnected battlefronts were created. If they had come together, the defenders of the holistic approach to sustainability argue, they might have produced more satisfactory results.

TRIVIALISATION OF LANGUAGE

In spite of all this, the idea of SD has gained widespread acceptance, driven by the ecological crisis and its effects on people's (present and future) lives. From the time of the Bruntland Report on (WCED 1987), it became a cross-cutting concept, at least in terms of discourse, in many development policies. Despite this broad consensus, "murmurs of disenchantment are also being heard. 'What is SD?' is being asked increasingly frequently without, however, clear answers forthcoming" (Lélé 1991, 607).

"Surfing the waves" of the politically correct masks reality and deters any sceptical or prejudiced reaction to sustainability, which is thus "in real danger of becoming a cliché (…), a fashionable phrase that everyone pays homage to, but nobody cares [about]" (ibid.). This gap between discourse and reality has repercussions on the state of the world and aggravates inequalities amongst countries and social groups, on account of the exponential growth of the ecological footprint which, with this lame global reaction, today threatens ecosystem viability and human civilisation as we know them, reflecting the global and unprecedented effects of human activity on the planet, which have ushered in a new era: the "Anthropocene" (Crutzen and Stoermer 2000; Latour 2017).

As we have seen above, it is true that environmental decay was the *leitmotiv* of SD but, in a global perspective, its "adverse consequences are time-delayed and/or distant on a huge planet. Time lags and geographical distance between anthropogenic causes and harmful consequences are conditions that push

unsustainability and danger out of focus and make them very different from the experience of disaster that becomes a focusing event. These conditions foster complacency which impedes action to avoid incubating disasters" (Murphy 2015, 400). Thus, even though SD has become part of the social, economic, and political jargon spread by the institutions of global governance, and a slogan for environmental and development activists, the world situation is tending to deteriorate, whichever way it is looked at.

While the progress SD has made should not be discounted, its effective implementation has often taken place in a fundamentally evasive fashion (Adger and Jordan 2009), superficially and in large measure with no results (Redclift 2005). Effective integrated action would be required to deal with the social and environmental effects of pollution and resource scarcity. In practice, however, crucial reforms have been delayed, and action has been limited to "wishful thinking" (Dryzek 2003; Guerra and Schmidt 2016), thereby necessarily diminishing the practical results of SD. In sum, we are living "in an age of sustainababble" (Engelman 2013), in which the very term "sustainability" is itself used in a not very sustainable way.

GROWTH AS OBJECTIVE

From early on the problems of co-ordinating development and sustainability were stressed as significant barriers to undertaking more balanced development. In a way, SD is the result of combining two contradictory terms that render it an oxymoron of poor practicality (Daly 1990; Redclift 2005). As Herman Daly warned shortly after the publication of the Brundtland Report, the idea of growth is too strongly embedded in the semantics of SD – and apparently on its own merits. See for example the following sentence, extracted from the Gro Harlem Brundtland's preface: "What is needed now is a new era of economic growth – growth that is forceful and at the same time socially and environmentally sustainable" (WCED 1987, Chairman's Foreword).

To be fair, Brundtland was arguing for socially and environmentally sustainable growth and was thinking above all of poorer countries less well equipped to face the challenges of sustainability. But as Daly wrote: "since the human economy is an open subsystem of a finite, closed, global ecosystem which does not grow (…), the term 'sustainable growth' should be rejected as a bad oxymoron — poetically unevocative, as well as literally contradictory. The term 'sustainable development' is much more apt, but in critical need of

operational clarification if it is to live beyond the short life expectancy of the average buzz word" (Daly 1990, 402).

Perhaps because that clarification never took place, the promises of the movement initiated at that time are forever stubbornly postponed. Environmental decay continues without mercy, just like the inequalities that produced and encourage it (Moore 2011), and despite the implicit renunciation of the capitalist/productionist development model that underpins the consumer society, little has been done to bring about the change advocated.

On the contrary, since the 1990s the

> neoliberal ascendancy (the "Washington Consensus") used fiscal incentives and sanctions at the international level to "roll back" the state, in both developed and emerging economies, and to give free rein to the market through abolishing government subsidies to producers, combined with the overhaul of external tariffs ("structural adjustment"). These market reforms eventually paved the way for accelerated economic growth, notably in the BRIC countries (Brazil, Russia, India and China) at the expense of growing internal inequality and the plunder of natural resources (Redclift and Springett 2015, 4).

In other words, despite the widespread discourse on sustainability, the questioning of market ideology – grow-or-perish – is frequently seen "as the act of a lunatic, idealist, or revolutionary (and frequently all three)" (Flinders 2012, 138). The consequences of growth are ignored, and promises are made to cater to the satisfaction of everyone's needs (present and future generations) without questioning the patterns of excessive consumption, which only current North/South inequalities make possible (Moore 2011) – all this despite the increasing application of those patterns to the so-called emerging economies, which help to call planetary limits even further into question.

FROM UBIQUITOUSNESS TO A CROSSROADS

The difficulties of implementing SD are due, in the final analysis, to the same factors that made it ubiquitous: elasticity and polysemy. "At the very least, the definition varies by scale and context of application; at the most, it varies by ideological constraints in its application" (Vos 2007, 334). Perhaps for this reason, the difficulties in its effective application have unfolded at the various levels of governance and in the diverse documents and international

conferences that have taken place since the Earth Summit. The last two World SD Summits, for example – Johannesburg (2002) and Rio+20 (2012), stood out for the lack of targets, timescales, and concrete commitments, representing clearly retrograde steps compared to the Rio Summit in 1992 (Soromenho-Marques 2003; Schmidt and Guerra 2016).

At the same time, as outlined by the Intergovernmental Panel on Climate Change, anthropogenic global warming is the foremost of an entire set of emerging development problems that require an integrated response (IPCC 2012). Based on such and other above-mentioned findings and warnings, there have been successive reports demonstrating the progressive deterioration of the global environment – with the continuous increase in greenhouse gases, pollution of air and water, the accelerated depletion of natural resources, and the increasing gap between rich and poor countries, and within them.

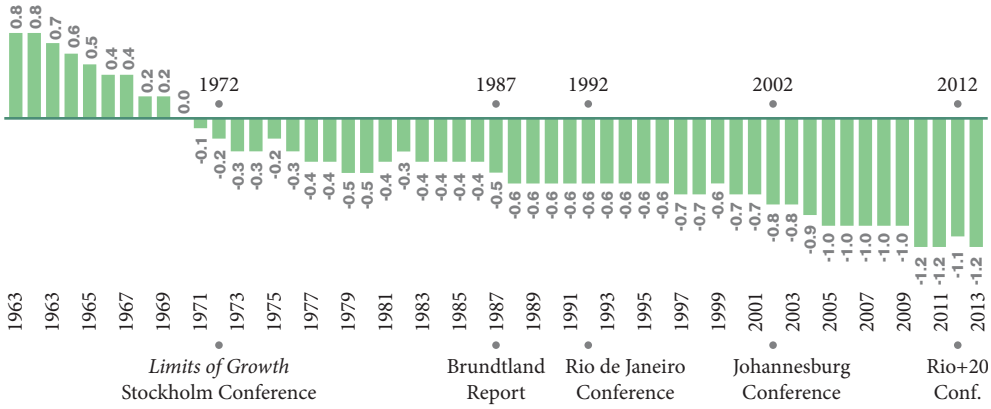
With some results that cross ecological and economic data, surmounted by a set of social perceptions' indicators, in the following pages we illustrate this detachment between proposals and achievements.

The trends in the Global Footprint are a good illustration of the discrepancy between that which is preached and that which is in fact implemented. It confirms the established inertia – a political and social reluctance to adopt different attitudes and behaviours (Wuthonow 2005) – which despite the holistic, cross-cutting, and omnipresent idea of SD and its normative documentation, has exacerbated the ecological deficit, i.e. the difference between nature's regenerative/productive capacity and the ecological footprint. In effect, the data of Figure 1.1 point to a disappointing record of implementation of SD, confirming that the relationship between the right to development (mentioned in the Bruntland Report and in Rio 1992) and the stabilisation of ecosystems, advocated at least since the publication of *Limits to Growth* in 1972, continues largely ignored.

In the same way, the Millennium Goals approved in 2000 by the United Nations General Assembly, which aimed at eradicating poverty by 2015, with clearly quantified targets, fell far short of being achieved (Anand and Sen 2000). That was one of the reasons why the UN set out new "Sustainable Development Goals" for 2015-2030.

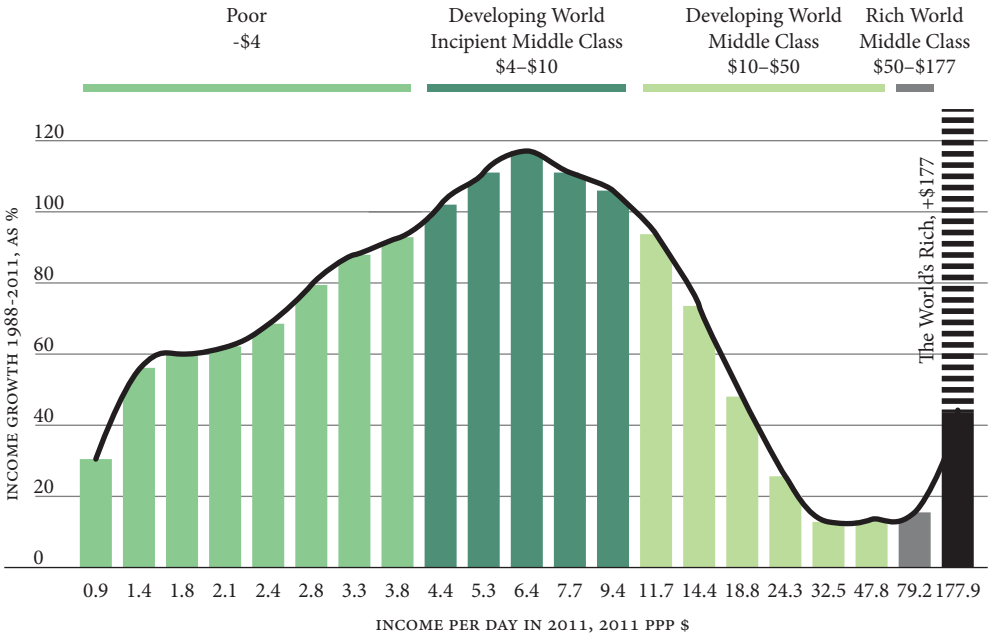
The evolution of wealth distribution over recent decades is also not satisfactory. In line with the Milanovic's Elephant curve (Figure 1.2), there are positive trends between 1988 and 2011, with growth of income in some countries, mainly China, but also countries like India, Brazil, Turkey, and

Figure 1.1 *World ecological deficit/reserve per capita (1961-2013)*



Source: Author's own elaboration from © *2017 Global Footprint Network. National Footprint Accounts*, 2017 Edition. Please contact Global Footprint Network at data@footprintnetwork.org for more information.

Figure 1.2 *The Milanovic's elephant curve (1988-2011)*



Source: Birdsall (2017).

many Eastern European countries, leading to millions of people climbing above the poverty threshold. However, in the rich countries of the North, growth over the same period was dramatically lower. Of course, the starting point is so profoundly unequal that enormous differences between North and South persist.

With incomes of the middle and lower-middle classes in rich countries having been adversely affected as a result of the financial crisis (2008-2011), confidence in the institutions and functioning of democracy were eroded (Guerra, Schmidt and Valente 2017), leading increasingly to "destabilising political repercussions as the squeezed middle class seek more responsive politicians to champion their cause" (O'Riordan 2014, 498). This situation, which often degenerates into populist movements boosted by defence of "our living standards" against globalisation and the financial system, may become an additional barrier to sustainability, because those who most benefitted from the period of crisis were the "richest of the rich", whose rates of growth match the minoritarian, but exponential concentration of wealth represented by the elephant's trunk in the diagram. This "trillionaire" minority has far exceeded other groups and, at least in the West, in a mass of "losers" in the middle and lower classes, was the only group that can clearly be viewed as a "winner" (Birdsall 2017).

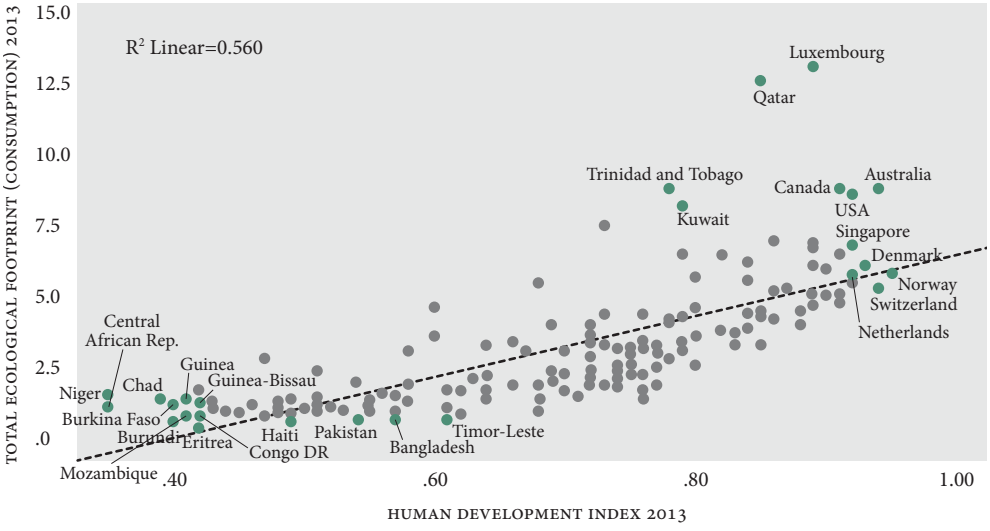
To sum up, over the last two decades we have witnessed: (i) growth in societal inequalities, with a small group of the hyper-rich benefitting from deregulation; (ii) the crumbling of social trust and the rapid rise of populist demonstrations that feed on growing feelings of insecurity, and (iii) the exponential growth of consumption in some countries of the South, with no effective "degrowth" in the North offsetting it.

Thus, despite the pattern demonstrated by Milanovic's Elephant curve, when looked at overall, inequalities between countries remain broadly unchanged or have increased, with no one effectively gaining, apart from a small group of highly privileged people. This is evident in Figure 1.3, which combines the Ecological Footprint with the Human Development Index for 2013. There is a statistically significant co-relation (Linear $R^2 = 0.560$) that seems to prevent the pursuit of the imperatives of sustainability, making it difficult to find an example that complies with the minimum standards required to achieve truly sustainable development. This situation occurs as a result of (i) excess production and consumption and consequent ecological decay, and (ii) lack of resources to enable a dignified life (i. e. human development).

Figure 1.3 confirms, above all, the regional imbalances revealed in the clear concentration of a large number of poor countries in the lower left-hand corner, together with a relatively low ecological footprint (low consumption, low environmental impact) and intolerable levels of societal sustainability (e.g. Burkina-Faso, Burundi, Chad, Democratic Republic of Congo, Eritrea, Mozambique, Niger, and others). At the opposite extreme we find those countries with a high ecological footprint together with high indices of human development. This covers a small group of countries including the richest and most developed in the world, which means oil-producing countries like Kuwait and Qatar, for example, together with Australia, Canada, the US, and many of the countries of the European Union.

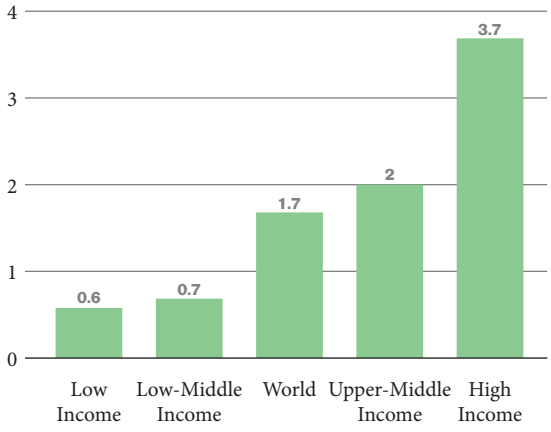
Global imbalances become even more obvious when countries' incomes are considered (Figure 1.4). While low-income countries account for a little more than half of what the planet can produce to meet their needs (0.6), high-income countries require the equivalent of 3.7 planets to achieve the same goal. In other words, if the standard of living of the rich countries were to become widespread, we would need almost four planets. Even if the index

Figure 1.3 *Ecological footprint and GDP per capita in 2013*



Source: Author's elaboration from © *2017 Global Footprint Network. National Footprint Accounts*, 2017 Edition; Human Development Report 2013 – UNDP (http://hdr.undp.org/en/data).

Figure 1.4 *Ecological footprint in 2013 – Earths needed according to income*



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underlying the ecological footprint is open to criticisms in terms of how data are collected and measured, the truth is that there is little doubt in overall terms that we are living far beyond the planet's regenerative capabilities, and that situation is the result, essentially, of lifestyles in the more affluent countries.

From this perspective, the "generous" discourse of sustainability is a mere expedient and, for some, a way of legitimising intervention and appropriation of the South's resources by the dominant countries of the North (Pureza 2000; Latouche 2005, 2009; Redclift 2009). In fact, the sustainability agenda has been outlined almost exclusively by the countries of the North, reflecting their problems and interests, in a kind of Western ecological neo-imperialism (Latouche 2005; Beck 2009). One symptom of this is the dominant and recurring concern with problems that will affect future generations, while at the same time minimising problems facing many regions and countries of the South in the present (Latouche 2005; Redclift and Hinton 2008; Redclift and Springett 2015).

In his recent encyclical *Laudato Si*, Pope Francis gives a clear warning of this imbalance, linking environmental issues to inequalities and seeing the equation of justice and carbon emissions as being decisive for the North/South response to the effects of climate change. He thus challenges the world to pursue truly sustainable development, because he sees in it the necessary capacity to adapt to a more intelligent economy fit to counter the prospective decline of human societies (Pope Francis 2015).

With current levels of societal and environmental decay, sustainability continues to be a guiding concept, and the requirements for pursuing it seem to be the only viable options in a world that is at a difficult and uncertain

crossroads. As Al Gore states: "human civilisation has reached a fork in the road we have long travelled. One of two paths must be chosen. Both lead us into the unknown. But one leads towards the destruction of the climate balance on which we depend, the depletion of irreplaceable resources that sustain us, the degradation of uniquely human values, and the possibility that civilisation as we know it would come to an end. The other leads to the future" (Gore 2013, 277).

This inescapable and urgent idea of change is indeed supported by countless scientists and pre-eminent thinkers from all areas. For example, on the Potsdam Memorandum, adopted at the First Interdisciplinary Nobel Laureate Symposium on Global Sustainability (held at Potsdam, in 2007), scientists from all areas stated that "we are standing at a moment in history when a great transformation is needed to respond to the immense threat to our planet. This transformation must begin immediately and is strongly supported by all present at the Potsdam Nobel Laureate Symposium" (*Potsdam Memorandum*, published in Schellnhuber et al. 2010, 369).

FROM CRITICISM TO MOBILISING FOR CHANGE

To overcome this persistent pattern of unsustainable development, "we need nothing less than a different concept of socio-economic progress, based on a new understanding of the relationship between humans and nature. [Then], the hope is that the limitations of greening discourses will contribute to reinvigorate the discussion around SD models for the 21st Century" (Bina 2013, 1042). From this point of view, some writers underline the importance of sustainability as a discourse to inspire change in society, the economy, and the environment, positing development and environment as two sides of the same coin (Brown 2001). In this perspective, the excessively rhetorical aspect of SD discourse is part of its strength, to the extent that one of its aims is to test how influential it can be, in a kind of persistent, drip-feed effect. It anticipates and promotes public policies and societal practices that take time and require new conditions (Ferreira de Almeida 2000).

In truth, it is difficult to deny that seeds germinate: the topic is on the agendas of national and international policymakers; it has cognitive influence, which enables consensus, even if it is somewhat rhetorical; it has become part of the logic of production; it is embedded in scientific research priorities; and

represents a cumulative process of triumphs. Some indicators are particularly significant, not least the UN's Agenda 2030, as embodied in its Sustainable Development Goals which, unlike the Millennium Goals, are of universal application. On the same scale of importance is the Paris Agreement, ratified by all the countries of the world at COP 23 held in Bonn in November 2017. Despite the announced exit of the US, this agreement will involve joint action by all countries to reduce greenhouse gas emissions, and a set of funding measures and programmes to deal with climate change specifically for the countries of the South.

In addition, many international and European organisations[1] have been encouraged to produce manifestos, with innovative proposals, for a new, greener, more sustainable, and circular economy, in the sense of promoting co-operation for the integrated harnessing of resources (Ferrão 2014). These are manifestos and programmes that define the assumptions of sustainability. In other words, they demonstrate how to restore the "health" of the economic system by creating jobs and businesses and at the same time combating the "crises" of the crisis: dependency on fossil fuels, the devastation of finite resources, the global loss of biodiversity, the food disaster, and stubborn poverty – problems which in turn have effects on the climate cycle and bring enormous risks regarding climate change and its consequences.

Finally, we should stress the key role of civil society as a driver of change. At the heart of its most effective involvement are: (i) the provision of information and scientific knowledge in a creative and motivating way and (ii) new mechanisms for public participation using innovative methods and spaces for civic engagement. The coordination of governance and sustainability strategies is another of the requirements put forward by, for example Agenda 21 (UNCED 1992). This is a *sine qua non* condition for an ethics of practical action, which by reinforcing proximity and establishing trust, is at the heart of the transition advocated, all the more so because weak or weakened states (as today's states increasingly are) need stronger civil societies; and the greater the involvement of all, in a balanced way, the greater will be the success of SD policies (Wuthnow 2005).

1 For example: EC (European Commission), EEAC (European Environment and Sustainable Development Advisory Councils), EEB (The European Environmental Bureau, EOSD (European Organisation for Sustainable Development), OECD (Organisation for Economic Co-operation and Development), SDC (Sustainable Development Commission – UK), UNEP (United Nations Environment Programme), UNO (United Nations Organization), WBGU (German Advisory Council on Global Change).

The potential for public involvement derives from this cross-cutting perspective of sustainability, which is reflected in the way citizens relate to environmental values today, even if anthropocentric values persist and are only gradually replaced, in a dynamic that depends on economic and social circumstances (Dunlap et al. 2000).

In effect, if we take into account some of the ISSP (*International Social Survey Programme*) indicators and how they have evolved in the first decade of the twenty-first century (Figure 1.5), there is a clear trend of general growth in ecological values[2] among interviewees in 35 countries on 5 continents.[3]

The higher average scores (3.53 and 3.55) obtained by the statement that questions the planet's ability to continue to support the growth of the world's population should also be noted. They show that this is a problem that the bulk of the world's population has taken on board, even if in some geographical areas an ageing population accounts for a dynamic that trends in the opposite direction.

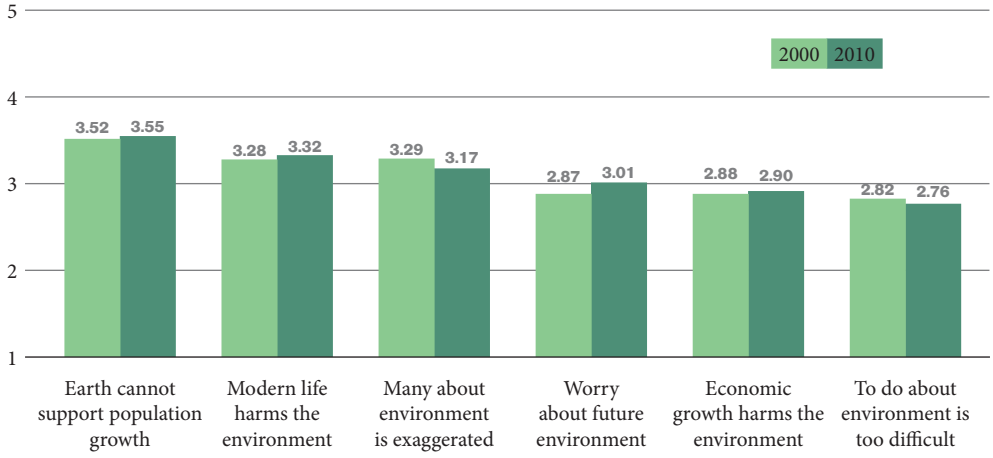
Two other variables emerge at a second level, questioning "modern life" (3.28 and 3.32) or the idea that much of what is said about the environment and the ecological crisis is exaggerated (3.29 and 3.17). The other remaining three variables – concern with the environment of the future (2.87 and 3.01), the idea that economic growth harms the environment (2.88 and 2.90), and the excuse that doing anything about the environment is too difficult (2.82 and 2.76) – find less agreement amongst interviewees but, even so, show positive average values and are trending consistently towards pro-ecological positions.

These values provide evidence of some hesitation between opting for anthropocentric or ecological values. But the general trend is for a progressive greater support for ecological values, even considering the fact that the economic and financial crisis which began in 2008 may have caused the pro-ecological inclination of some interviews to waver (but not regress). Without

2 For variables that do not call on environmental values – "much about the environment is exaggerated" and "doing [something] about the environment is too difficult" – the trend is negative. So here too there is increasingly a pro-ecological and pro-sustainability attitude.

3 In the third round of ISSP Environment (which took place between 2010 and 2012) the following countries were present: Argentina, Austria, Belgium (Flanders), Bulgaria, Canada, Chile, Taiwan, Croatia, Czech Republic, Denmark, Finland, France, Germany, Iceland, Israel, Japan, South Korea, Latvia, Lithuania, Mexico, Netherlands, New Zealand, Norway, Philippines, Portugal, Russia, Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Great Britain, and United States.

Figure 1.5 *Trends in agreement with statements relating to the environment*



Source: Author's elaboration from ISSP Research Group (2012): International Social Survey Programme: Environment III – ISSP 2010. GESIS Data Archive, Cologne. ZA5500 Data file Version 2.0.0, DOI: 10.4232/1.11418.

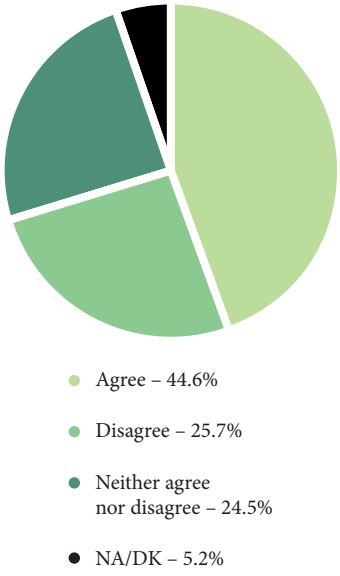
this, the trends recorded could well have been much more positive (Guerra, Schmidt and Valente 2017).

The 35 countries in the sample may not be representative of the whole planet, so these results should be viewed with a degree of caution. Here too, moreover, we can see the planetary imbalances that consecutively exclude many millions of human beings. The idea, however, is to show how environment, economy, and modern ways of living are intimately connected not just in their physical consequences (social and environmental decay), but also in perceptions of them and in the positions adopted by citizens in the most diverse geographical contexts, given that the trends are global and emerge regardless of the affluence of the countries in which the study took place.

To finalise this analysis let us examine whether these same interviewees feel any effects of ecological decay in their day-to-day lives. The results in Figure 1.6 show that almost half (44.6%) of them do; about one quarter of them (24.5%) are undecided, and only one quarter state that they feel no direct effect of ecological decay on their day-to-day lives. It is significant, therefore, that a large majority of interviewees are somewhat apprehensive about environmental problems.

Interest in, and concern with, the environment derive undoubtedly from a multiplicity of contextual factors, in which attitudes about modern life and the

Figure 1.6 *Direct effect on everyday life of environmental problems*



Source: Author's elaboration from ISSP Research Group (2012).

economy are only part of a complex set of interdependencies. There are many other variables involved, but these have not been analysed here, for lack of space. For example, in many of the countries usually regarded as being more developed, growing ecological awareness goes hand in hand with implementation of more effective environmental policies. For this reason, signs of ecological recovery may contribute to a positive assessment of national performance and thereby produce environmental danger and risk assessments that reduce people's concerns, but not their appreciation of the quality of the environment, whether for present or future generations. In fact, when environmental disasters do arise, as occurred in 2011 with the accident at the Fukushima nuclear plant in Japan (Schmidt, Horta and Pereira 2014), the critical sense becomes sharper and more prominent, making inroads in countries where environmental policies are not as well developed and have produced fewer environmental gains.

CONCLUSIONS

As Eli da Veiga (2012 [2011]) points out, until the late sixties of the last century, the adjective "sustainable" was just jargon used by some scientific communities to evoke the possibility of an ecosystem not losing its resilience. However, as we have tried to emphasise above, after the "legitimacy" gained in the Brundtland Report and the Agenda 21, the notion has been put under suspicion on all fronts: from the staunchest "grow-or-perish" supporters to the most fundamentalist environmental defenders. The disconnect between

the proliferation of discourses on Sustainable Development and the failure to apply them in practice seems a source of discredit, which results from three basic factors:

- Inherent contradiction, which makes the concept an oxymoron, and thereby difficult to apply in practice, because of the prevalence of the economic imperative to "grow-or-perish", in the face of societal inertia and the ineffectiveness of politicians and policies. The linear objective of economic progress produces risks of ecological damage. When it is claimed by everyone, regardless of the level of economic development, it may become unsustainable (Latouche 2009);
- The ubiquitousness and elasticity of the terms SD and/or sustainability, which, having the advantage of being disseminated and their principles and objectives widely known, also trivialise the concept by applying it on occasions that often do not go much beyond rhetoric and superficiality. While it is not new, the concept of sustainability has come to be accepted, and has been partly assimilated, but little implemented in practice, in a slow process that does not challenge established interests (Redclift and Hinton 2008).
- Its excessive association with environmental problems, which ultimately weakens SD programmes. This is not because environmental problems are insignificant, but because government and political institutions tend to undervalue the ecological crisis and hence to operate and make decisions in a way that discounts the linkages between environmental problems and economic dynamics, in a context of "organised irresponsibility" (Beck 1995).

These disconnects occur because the rigour implicit in "thick sustainability" goes hand in hand with greater demands (e.g. more improvement, more commitment, more complexity). While these produce disagreement and resistance, the more obvious choice (for political decision-makers, but not only them) normally falls on the "thin" version of sustainability. As Thaddeus Miller rightly stated, "the context and conflict that come with thickness are absent in thin sustainability" (Miller 2011, 30). The option to go for less demanding versions of Sustainability is thus often a deliberate one and, while on the one hand it enables progress on certain points on which there is a consensus, it is also true that it helps to postpone the more significant decisions.

In this no man's land, the less pressing and less visible consequences of environmental, societal, and economic decay are ignored, and in general terms people and institutions become complacent, hindering more effective action. The results of the increasing ecological footprint, and increasing inequality, are a good demonstration of the relative failure of SD policies adopted in recent decades. What we have witnessed is not a balance between the *thin* and *thick* versions of sustainability, but basically the maintenance of the dominant paradigm, intersected now and again by more successful actions generally more in line with the *thin* version.

Even so, it cannot be denied that there has been "a continuous shifting of efforts to try to advance long-term sustainability based on local, national, regional, or international conditions" (Brinkmann 2016, 232). This shift, over almost three decades, did not go unnoticed in the world – by institutions, political actors, and citizens. Despite the relative lack of success, of which we have given an account here, it cannot be said that we would be better off without the effort that was actually made to popularise and even implement Sustainability, even if in an *ad hoc* and "thin" manner. The data show some signs that extreme poverty has been reversed and that environmental awareness has become a cross-cutting and ongoing phenomenon. Hence the significance of policies that acknowledge (and put into practice) the holistic nature of Sustainability, and the importance of disseminating the results of successive world reports so as to: (i) establish that the path the world currently continues to pursue is unsustainable, and (ii) outline the urgent need to reverse this destructive process by building Sustainability.

For the challenge of change to have tangible effects, citizen mobilisation and involvement take on a key role in an increasingly interdependent world, in a situation that demands collective and across-the-board commitment not only in ways of thinking, acting, producing, and consuming, but also in reorganising, restoring, and improving, and even more so in a context of the progressive weakening of states. In this sense SD emerges as the narrative most likely to overcome the challenges of the twenty-first century. Because it involves all – citizens, businesses, government – in a global programme to revive the economy in new ways that will reconcile employment and the conservation of the environment, not forgetting the most vulnerable groups and the need to ensure equitable access to available resources. This may be wishful thinking but, as Tim O'Riordan emphasises, the transition "is [already] happening in the streets and fields of the unexplored niches of heartening sustainability

transitions" (O'Riordan 2014, 516), even if very gradually and while not being immune to the social and economic status quo. These initiatives, often undertaken by civil society at the local level, are specific, ephemeral instances of short-lived resistance. And they will continue to be ephemeral if the transition to Sustainability, advocated by nearly all and practiced by almost no one, does not become reality. But there seems to be no other way.

While it is true that social norms and behaviours are resistant to change, and even more so the institutions of government that could influence them through active public policies – which surely makes it more difficult to achieve long-term change – it is almost certain that we have little room for manoeuvre and that the time remaining to us is rapidly running out.

The global crisis which, to a large extent, remains *ad infinitum* in contemporaneity, can be seen as "a declaration of bankruptcy by a society that subsidises its 'wealth' by externalising the main part of the costs linked to production and consumption, imposing them on coming generations, on human beings living far away, and on nature's capital. These costs involve the exploitation of the environment, as well as financial debts and burdens" (Töpfer 2010, 375).

This means that all that is left is to take compliance with the Sustainable Development Goals adopted by the UN in September 2015 seriously. In strengthening the socio-economic aspects of SD, these goals seek to embed an effective strategy for eliminating poverty, reducing the growth in consumption, and preventing the decay of ecosystems, which will necessarily involve the difficult challenges of stopping exponential population growth and reducing carbon emissions, as provided for in the Paris Agreement.

On the other hand, sustainability is also a matter of better articulating the conservation of human life and human quality of life with the conservation of natural resources and environmental quality. For SD to be effectively practiced, a proactive complementarity must be achieved between a narrative of ecological limits (which underlines difficulties and the aggravated pressure on natural resources) and a more optimistic narrative that does not impose the inertia by discouragement (Schmidt 2017). In line with ecological modernisation (Mol 2002), and counting on ingenuity and innovation at various levels: technological, scientific, institutional, political, human… this kind of Promethean narrative can also help to reverse the degradation process if associated with the idea of limits and adjusted to natural constraints.

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