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*Article*

# Assessing the Top Performers:

# Mindful Conservatism and 'Sustainable Development'

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**Abstract:** In the light of the increasing constraints imposed on human affairs and ambitions by the limits of our ecological support systems, the concept of sustainable development has undergone substantial revisions. In fact, many programs and plans that were advocated under the banner of 'sustainable development' hardly qualify as either sustainable or even as development in any rigorous sense. This finding was supported by the observation that the bioproductive areas of many of the world's least 'developed' countries still exceed their ecological footprints. In other words, unlike many of the world's richer countries, they still operate within the realm of sustainability. The widely shared humanistic concern for the well-being of future generations elevates sustainability to a prime goal among our national and global aspirations. Countries that operate sustainably need to ensure that they remain in that realm, and others should endeavour to reach it. In this paper we focus on the former of those propositions and suggest some general policy directions that would help some 'developing' countries retain their relatively sustainable status while improving the well-being and human security of their citizens. Preventive health care, subsistence agriculture, fertility reduction, and restrictions on foreign investments are discussed as possible means. Policies that are to be avoided include development schemes that increase market

dependence and the ratio of footprint over capacity. As prerequisites we suggest counter-hegemonic solidarity, democratic consensus, and holistic education.

**Keywords:** Development; ecological footprint; overshoot; neo-colonialism; human security.

## 1. Introduction

The advent of the fifth IPCC report on climate change on 27 September 2013 [1] once again confirmed that humanity now lives on a planet that differs substantially from the one we evolved on, and that this planet is undergoing rapid further changes [2]. Regional climates are changing and becoming less predictable, sea levels are rising, ecosystems are collapsing into less complex forms with fewer species, key natural resources are becoming scarce, while human populations are growing into unprecedented dimensions. Besides climate change, the drivers of those changes include pollution, overconsumption and overharvesting, and the destruction or modification of habitats with the attendant loss of biodiversity. A global assessment by analysts from the Stockholm Resilience Centre [3] indicated that humanity has now transgressed three, and is approaching three more, of nine critical boundaries that describe the sustainable limits of our ecological impact on the biosphere [4].

The transgression of sustainable boundaries has also been confirmed by studies measuring the expanding ecological footprint of humanity and comparing it to the relatively constant bioproductive capacity of the planet [5, 6, 7]. Those comparisons indicate that humanity exceeded the maximum sustainable ecological impact at some point during the mid-1980s [8], has since increased its overshoot to approximately 1.5 planets, and is likely to exceed 2.0 by 2030 [9]. Clearly we are on a course to disaster, a course that is difficult to change.

Some countries have moved further along that course than have others. Comparisons of the ecological footprints of countries reveal some remarkable differences [9]. Among the OECD countries, only Canada, Australia, New Zealand and Russia have remained below their sustainable limits. The rest have overshot their environmental impact by as much as factor ten [9]. Comparing high-, middle- and low-income countries, only the latter have on average not yet exceeded their capacities [9]. Among the world's poorest countries, the ones with relatively low population densities still operate well within their sustainable limits while others have overshot despite very low per capita consumption rates.

These differences raise questions about the causes of ecological overshoot. At the global level, the most pressing causes are associated with human overpopulation cum overconsumption. [10, 11, 12]. More specifically, five causative and self-reinforcing processes have been identified: economic growth, population growth, technological expansion, arms races, and growing income inequality [13, 14, 15, 16]. The increasing per capita consumption of OECD citizens has inflated their individual footprints far beyond sustainable levels of their countries (except for the four mentioned above), even considering low rates of population growth. In contrast, in some poor countries it is their sheer population sizes that have pushed them over the brink, despite very low per capita consumption. However, other poor countries remain below the sustainability threshold because their relatively low population densities have allowed the collective footprint of their populations to not yet exceed their bioproductivity [17].

Tragically, many development aid programs are explicitly designed to stimulate economic growth and technological expansion while doing little to reduce the other drivers of overshoot [18]. Thus, despite their explicit mission to promote 'sustainable development' those programs tend to increase ecological footprints while the biocapacity of those countries remains more or less constant or even deteriorates. By increasing the ratio of footprint to capacity they tend to move those countries exactly in the wrong direction, away from sustainability [18]. The tragedy lies in the fact that the stated motives behind those efforts are often humanistic and framed under such slogans as 'eliminating poverty' and 'fighting world hunger' while their long-term consequences tend towards the exact opposite [19].

The environmental changes on the new planet we inhabit, McKibben's Eaarth [2], render those consequences even more severe. The loss of coastal lands to rising seas, scarcity of foods and other resources due to unpredictable climates and severe weather, the resulting displacement of large populations and economic downturns all subtract from what level of activities can be considered truly sustainable [20], as a considerable fraction of economic capital and resources will be taken up by our efforts just to mitigate catastrophes. In addition, post-carbon constraints on international trade, industrial production, and health care will make it more difficult and expensive to raise such resources [21], with grave consequences for human security [22]. Even without invoking any quantitative projections we can confidently predict the secondary effects on economies, population health and international relations to severely curtail our means to provide a safe living space for all of humanity.

With those prospects in mind, and on the basis of widely accepted humanitarian principles (mitigate and prevent suffering, maximise welfare and justice) we propose two broad policy aims as the only justifiable courses of action: Countries that still operate sustainably need to ensure that they remain in that realm; and other countries should endeavour to reach it. In that sense, all countries should consider themselves developing. Progress thus needs to be redefined as movement towards minimising footprints and maximising biocapacity (if at all possible) over the long term [23,6]. Progress, like development, has been misdefined and misinterpreted as a concept for so long that it has become all but meaningless. Yet the word has retained some normative pull which has given rise to "progress traps" [24], confidence in innovation that seems 'progressive' and beneficial but does not take into account disastrous long term implications. A redefinition of progress amounts to a critique of modernist ideology and of "ideological pathologies" [24] such as cornucopianism (i.e. the belief in boundless growth) [25].

The strategies towards those aims differ greatly for affluent countries and poor ones, for sustainable countries and those that have overshot. They also depend on the trends that govern projections of a country's future footprint and biocapacity. In this essay we focus on strategies for those countries with the most favourable starting position, countries whose ecological footprints have not yet reached their biocapacities and thus show a low ratio of footprint to capacity. We have referred to this ratio as the sustainability quotient (SQ) [17]. It signifies how sustainably a country or region operates; once its SQ exceeds 1.0 the consumptive demands are being met by cannibalising local ecological support structures or by importing resources from an outside region (which must have a surplus if this practice is to be sustained).

The twenty-five countries with the lowest SQ values are listed in Table 1. Our rationale is as follows: If these countries cannot achieve sustainability, what other countries could possibly even have a chance? And if they can, surely other countries can learn valuable lessons from them. Even though

the WWF database [9] lists twenty-one additional countries with SQ values below 1.0, the need for extra biocapacity to maintain wilderness and to facilitate regeneration renders those countries less sustainable than the lowest ones. Our intention was to focus on the countries with the best chances of succeeding.

The first observation about this sample that meets the eye is that they are not all poor, as measured by the conventional standard of GDP per capita [26]. In fact, their mean individual income (US$12,208) approximates the world average listed in the table, US$12,700. With regards to the common goal of maintaining sustainability, the eight countries with higher-than-average incomes are in a quite different situation compared to the seventeen countries with lower incomes. The two groups face different challenges and have different solutions at their disposal, as will be elaborated in the next section.

However, for both groups of countries in this sample of twenty-five, achieving sustainability means retaining some of their traditional ways of life and critically examining any innovations for their effects on footprints and capacities. Chet Bowers [27] referred to this approach as 'mindful conservatism', recognising that "the past is a living part of the traditions re-enacted by the current generation; and a critical stance, as well as a deep understanding of past achievements and wrongs, is essential to discriminating between constructive and destructive innovations". Mindful conservatism means resisting the unreflective progressivism [2] of neoliberals, neo-conservatives, leftist-socialist, and other shades of the political spectrum, and to concentrate on strategies that promise to deliver on the goal. Those strategies are grounded in cultural traditions that date back to the period of human history before the industrial revolution, when success was measured as stability, rather than as explosive exponential growth. They combine this conservatism with suitable innovations in an eclectic fashion that gets the job done.

## 2. Strategies towards Sustainability

In this section we propose five broad strategies that can enable both groups of countries to achieve the goal of maintaining sustainability while ensuring an acceptable measure of human security [25]. They are first and foremost to be interpreted as strategic aims, achievable by a choice of alternative avenues. For the eight affluent countries in the sample those avenues will involve preserving an acceptable standard of living and human security for their citizens while implementing reforms that will necessitate a profound restructuring of their economic systems.

The seventeen 'poor' countries will choose a different path. Such 'poor' countries are often singled out by well-intentioned 'development' aid efforts to bring them out of their misery into the ranks of consumer countries. Elsewhere [25,18] we argued that such good intentions are informed by fallacious assumptions and counterproductive values. Taking into account the inescapable facts that limits to growth are both real and often transgressed without any immediate catastrophic consequences [28], humanitarian principles dictate quite a different course of action. It aims at increasing quality of life, gross national happiness, and human security without increasing the country's footprint. This may well require international help, but not in a form that increases their environmental impacts. Both groups, affluent and 'poor', must work toward the goal to keep their footprints below their biocapacities. In the following paragraphs we propose how that might be accomplished.

**Table 1.** The world's twenty-five most sustainable countries are ranked in order of decreasing SQ values and compared to the global average. Sources: WWF 2012 [9] , CIA Factbook [26].

| Country | Footprint [gha/person] | Biocapacity [gha/person] | SQ | GDP per capita (PPP) [US$/person] |
|---|---|---|---|---|
| Gabon | 1.81 | 28.72 | 0.063 | 16,800 |
| Congo | 1.08 | 12.2 | 0.089 | 4,700 |
| Bolivia | 2.61 | 18.39 | 0.142 | 5,200 |
| Central AR | 1.36 | 8.35 | 0.163 | 800 |
| Congo DR | 0.76 | 3.1 | 0.245 | 400 |
| Paraguay | 2.99 | 10.92 | 0.274 | 6,200 |
| Namibia | 2.03 | 7.18 | 0.283 | 7,900 |
| Angola | 0.89 | 2.98 | 0.299 | 6,500 |
| Brazil | 2.93 | 9.63 | 0.304 | 12,100 |
| G-Bissau | 1.1 | 3.4 | 0.324 | 1,200 |
| Mozambique | 0.78 | 2.21 | 0.353 | 1,200 |
| Mongolia | 5.53 | 15.33 | 0.361 | 5,500 |
| Zambia | 0.84 | 2.31 | 0.364 | 1,700 |
| Argentina | 2.71 | 7.12 | 0.381 | 18,400 |
| Madagascar | 1.16 | 2.92 | 0.397 | 1,000 |
| New Zealand | 4.31 | 10.19 | 0.423 | 30,200 |
| Canada | 6.43 | 14.92 | 0.431 | 43,400 |
| Liberia | 1.28 | 2.95 | 0.434 | 700 |
| Eritrea | 0.66 | 1.47 | 0.449 | 800 |
| Australia | 6.68 | 14.57 | 0.458 | 43,300 |
| Colombia | 1.8 | 3.89 | 0.463 | 11,000 |
| Uruguay | 5.08 | 10.03 | 0.506 | 16,200 |
| Finland | 6.21 | 12.19 | 0.509 | 37,000 |
| Peru | 2.03 | 3.82 | 0.531 | 10,900 |
| Estonia | 4.73 | 8.73 | 0.542 | 22,100 |
| World average | 2.70 | 1.78 | 1.517 | 12,700 |

*2.1. Make Healthcare Primarily Preventive*

Preventive health care, as opposed to much costlier therapeutic interventions, needs to receive top priority in health expenditures – a priority that is not yet reflected in the medical literature [29]. For the affluent group this means moving away from costly symptomatic interventions while maximizing the

benefit of low-cost preventive care, lifestyle adjustments, and reforming the food industry. This follows from the extent to which cost intensive health care systems such as those in North America and Europe currently depend on growth-oriented economies, which are unsustainable [30,31]. Many chronic illnesses have been traced to unhealthy diets that are provided by a powerful fast food industry and mega-agricultural corporations. Others are linked to failures of ecosystem health [32].

The poor group will still benefit from medical aid programs, including immunisation campaigns, nutritional programs, epidemiological prophylaxis, physiotherapy and rehabilitation, prenatal and neonatal diagnosis, addiction counseling and disaster relief [33]. It aims at improving population health by preventing disease and dysfunctions to avoid the development of chronic ailments that are much more difficult and costly to address – too costly to administer fairly across the population of a poor country. Such treatments tend to depend on expensive imported pharmaceuticals and professional expertise that a deliberately cash-poor country can ill afford. The advantages of poor countries lie with well preserved traditional non-orthodox medical alternatives, and on the nutritional side: As long as enough food is produced to feed everyone, the choices of food tend to be on the healthy side, locally produced by sustainable methods, and lower on the food chain - unlike the choices open to citizens of affluent regions [34].

### *2.2. Control Population Growth*

In the affluent group, immigration is the main source of population growth while fertility levels approach replacement or even have dipped beneath it. Curbing immigration is no great challenge, as populist movements to do so have already gained wide support, particularly in Australia.

For the ‘poor’ group the major means of curbing population growth is fertility reduction, which represents a serious challenge. Even the discussion of population growth has been widely tabooed among analysts and politicians [35]. Yet, engagement with it is imperative; population size is one of the three major variables that determine environmental impact according to the I=PAT formula [36]. Historically, the widespread improvement of population health in a region was almost invariably followed by a boost in population growth. The much-invoked demographic transition tends to occur, if at all, after considerable delays and depended on significant increases in the standard of living, which is not an option for a country in the group in question. Yet the prevalence of infectious disease in poor countries makes urgent intervention imperative [37]. The challenge, then, will be to decouple fertility from population health [38,19]. Instructive examples could be the successes achieved by Iran, Oman and the Maldives in drastically reducing average fertility by widely providing intensive family planning measures free of charge [39]. The goal of those efforts should be to reduce average fertility to replacement levels as soon as possible.

### *2.3. Make Food Production Locally Self-Sufficient*

Subsistence agriculture, long regarded as a sign of poverty, has the invaluable advantage of being locally self-sufficient, sustainable within historic precedents, holistic in terms of nutritional value, and immune from fluctuations in the national economy. It includes the possibility of local exchanges of agricultural products, allowing farmers some degree of specialisation, but it avoids any dependence on long-distance transportation, and it minimises dependence on fossil fuel technology in the form of fertilisers, pesticides and herbicides, preservatives, and packaging materials. It also avoids the

substantial amount of wastage associated with transport , storage, and distribution over large regions, especially those with a poor infrastructure. Moreover, it avoids large-scale monoculture and its detrimental effects on local ecosystem health. Local movements towards those aims have gained momentum in both affluent [40] and 'poor' countries [41].

### *2.4. Lessen Dependence of Global Trade*

The rich countries will find it very difficult to extricate themselves from the complex dependencies, obligations, and opportunities of the global market. Yet, their industrial production contributes significantly to the depletion of global resources and to their footprints. Inordinate dependence on fossil fuels render current trade practices unsustainable [21]. Over the long term, their economies will have to be restructured to become independent from their delusional dependence on indefinite growth. Regional trade, however, can and should be maintained as long as it remains sustainable.

For the 'poor' countries, decreasing their market dependence internationally should be among the top priorities to avoid falling into the trap of cash crops and its associated problems with land ownership (land grabbing), monopolies, price fluctuations, and the looming fuel shortages in the wake of peak oil [42,43]. In order to minimise their footprints while ensuring a reasonable amount of welfare for all, the countries need to carefully limit their exports of commodities and imports of consumer goods, including petroleum products. Above all, no access should be permitted to the international arms industry.

### *2.5. Restrict Foreign Direct Investments*

An affluent economy that no longer depends on growth will show less of a tendency to invest outside its region. In turn, fewer investment attempts will be experienced from the outside. This will not be a major challenge provided the abovementioned economic restructuring can be achieved.

For the 'poor' group, restrictions on foreign investments follow logically once a country has secured a relative independence from the vagaries of the global market. By limiting the amount of economic capital flowing into 'poor' countries, they can minimise possible exposure to international pressure, obligations to reciprocate, and the dangers to sustainability posed by an emerging middle class of hyperconsumers blindly emulating the global 'North'. Restrictions also lower the danger of misguided industrialisation that might lead to any of the nine boundaries being transgressed [4] or other unforeseen environmental damage.

The overarching aim of these strategies is to maintain, or to possibly increase, the ratio of footprint over biocapacity (SQ). Preventive healthcare minimises expenditures per citizen and thus keeps the national footprint low. Population control prevents the compounding of economic, environmental, socio-political and health-related threats to human security associated with increasing populations. Population stasis represents a sine qua non condition for sustainability for any country [44]. Subsistence agriculture, when optimally developed, works toward both objectives by minimising expenditures and waste (thus lowering the footprint) and by maximising the biocapacity and ecosystem health of productive regions. A minimal dependence of 'poor' countries on the international market and restrictions on foreign investments help to limit the consumption of luxury goods and non-

renewable energy (thus greatly limiting the footprint) and they help prevent ecological destruction by externally funded 'development' initiatives with dubious hidden agenda.

Our list of strategies is not intended to be complete or comprehensive; rather, we sought to identify some of the greatest priorities under the current conditions. Those conditions are anything but stable; rather, the strategies will have to be implemented on a rapidly changing planet. Their feasibility depends on the numerous changing variables that describe McKibben's Eaarth – extents and rates of sea level rise, regional climate change, impacts of severe weather events and other natural disasters. In many cases those changes are compromising ecosystem services and biocapacity [45]. This changing world requires adaption as well as mitigation [46], which subtract from the amount of resources available for those strategic measures. In that sense, one basic prerequisite for implementing those strategies is that those ad hoc requirements leave a country with sufficient latitude and means.

## 3. Prerequisites and Empowerment

In the light of the challenges and constraints discussed in the introduction, the goal of sustainability should seem an undisputable priority to all but the most ideologically hardened reader. We used as operational definition of sustainability any situation that allows a population to remain within the nine boundaries described by Rockström and coworkers [4], and to keep its footprint below the limits imposed by its regional ecological support structures [6]. In the current global situation any country would be severely challenged to accomplish this, which is why we focused on those countries with the best chance – those that are still operating within sustainable limits at this time. Still, the strategies listed above may at first glance appear utterly utopian. However, we submit that the mere fact of sustainability in those countries at this time indicates that somehow those measures have actually been in operation in those countries with some success. In the case of the rich ones their sustainability may be temporary; current industrial trends may still point towards eventual exhaustion of resources and ruin. In the 'poor' group sustainability is a true blessing – if not as part of explicit governmental policies then at least in the rich context of cultural traditions from which the population has benefitted over centuries. Somehow their healthcare, fertility, food production and trade practices, along with other factors, have helped make sustainability possible. It is those traditions from which mindful conservatism derivers its potential.

Many countries in the global South were of course not so lucky. The scourge of colonialism in its old and newer incarnations, along with misguided notions about progress and boundless growth, has moved many poor countries out of their sustainable realm. In the company of that majority, maintaining one's sustainable status as a 'poor' country is bound to require substantial help from many sides. We suggest three areas of support that seem all but indispensable. They certainly apply to the 'poor' group but to some extent they apply to the affluent group as well.

### *3.1. Counter-Hegemonic Solidarity*

Countries that are small or poor (or both) stand a better chance to withstand neo-colonialist ambitions of outside powers and to complement each other's many weaknesses on the international stage if they support each other in their efforts to become more economically self sufficient. A historic example is provided by the nonaligned countries of the 20th century. Multilateral agreements and regimes of that kind can allow for cooperative initiatives that can result in synergistic benefits to its

members and complementation through trade. With many crucial non-renewable resources approaching critical scarcity the pressures on the countries of the global South will increase to open its boundaries to all-out exploitation of its 'resources' by the highest bidder. History has shown the lengths and shady intrigues to which even purportedly democratic countries will commit to gain and secure access to Third World resources. Solidarity might not be sufficient to deter them, but it is probably a necessary condition.

### *3.2. Democratic Consensus*

Goals and strategies need to be laid out clearly before the electorate and a majority mandate be obtained before a government can embark on a program as ambitious as securing national sustainability. This applies even more strongly to 'poor' countries where democratic traditions may be weak and culturally questionable. The temptation may be great for a populist leader to assume the reigns and enforce their vision of the common good; equally great is the likelihood of subsequent backlash, civil strife, and the loss of prior gains. To some extents all our suggested strategies, but most definitely family planning and other means of fertility reduction because of their questionable reconcilability with cultural traditions, depend on democratic consensus.

### *3.3. Holistic Education*

The struggle for sustainability is as much an ideological one as it is logistical, technological, and moral. The world's great revolutionary movements relied heavily on education of the young and old to secure continued support from the populace over generations. The kind of education that is required encompasses much more than what was envisioned under UNESCO's Decade of Education for Sustainable Development [47]. Transformational education [48] requires that teachers and learners work together to transcend ideological influences that subtract from the betterment of society. In countries whose traditions are actually sustainable, this effort takes the form of critically examining exogenous ideologies (as in the case of today's Bhutan) for their contributions to a national goal. As such education relies heavily on shared values, attitudes and beliefs it extends holistically over all subjects and levels and empowers learners to assume leadership in sustainability initiatives [49]. Thus, it explicitly promotes mindful conservatism. If democratic consensus is necessary to provide medium to long-term support for a sustainability program, holistic education is required to secure it for generations [50].

Again, we do not believe that the strategies in this short list are in any way sufficient but we assert that they are necessary. Without international solidarity, internal consensus, and provisions for the empowerment of future generations, the prospects for sustainability seem miniscule, even for the world's best-placed countries.

## 4. Conclusion: The Merits of Staying in Place

We arrived at the idea for this essay by asking, "if we are really serious about achieving sustainability, what would have to be done at the national level, and what kind of country would be in the best position to do it?' The answers are informed by our definitions of sustainability and by international footprint accounting. The best opportunity is provided to countries whose footprints have

remained below their biocapacity; after all, that is the overarching goal of sustainability, and it is easier to maintain than to work towards. Ironically, progress towards sustainability among the global community of countries is being led from behind, by some of the world's poorest countries and large colonial offshoots doing their best to stay in the place where they have been since time immemorial. The most important steps in those efforts are all focused on minimising a country's SQ and keeping it small, through decreasing its footprint and increasing its capacity, as much as the latter is still possible, or at least widely preserving the health of its ecosystems.

This line of argument obviously ends at national boundaries. However, as for ecological problems national boundaries are near irrelevant the arguments must ultimately be extended to the international and global levels. There the challenges assume new dimensions, from addressing the obscene extent of inequity and its worsening trends to the lack of any real authority for binding arbitration. 'Staying in place' is out of the question for humanity as a whole. Compared to those truly daunting challenges, securing the sustainable status of a single country seems outright feasible.

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**Conflict of Interest**

The authors declare no conflict of interest.

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