

Distinguishing PD (Positive Development) from the SDGs (sustainable development goals), their sub-goals, targets and indicators

The global indicator framework for SDGs was developed by the Inter-Agency and Expert Group and agreed upon by the UN Statistical Commission in March 2017. The indicator framework was adopted by the General Assembly in July 2017 and reviewed comprehensively by the Statistical Commission in March 2020.

Although transparency and interdisciplinary input are always espoused, this indicator framework shows what happens when a concept like sustainability is filtered through the sieve of a cultural silo and not integrated with sustainability. The statistical data and indicators used here are aligned with the priorities and paradigms of economics-led growth, not sustainability, let alone a positive sustainability paradigm.

While the SDG's 17 headlines themselves are inspiring, the sub-goals and targets cannot bring about systems change, and the indicators will not implement those aspirations. Money is the pre-condition and measure, not biophysical reality. Words can provide an indication of the priorities in indicator frameworks. Finance/financial, economics/economy, GDP and investment combined are mentioned 83 times, 3 times more than sustainability words such as justice, equality, ecosystems, biodiversity, nature, and ecology - which combined are only mentioned only 28 times.

It does not say how investment in competing spending programs will solve the big problems such as climate change and ecosystem collapse. Instead of calling for changing development systems and built environment design, it lists general problems to spend money on, without means of guaranteeing outcomes, guiding directions, or providing sub-goals or solutions for problems caused by past urban growth or money spent on failed solutions. Why throw more good money after bad?

Most indicators here use economic or financial measures that may be intended to help the disadvantaged but would do little to reduce 'disparities' of wealth in income or built and natural capital. For example, they do not contemplate physical design changes, without which monetary transactions or more less-harmful products will have little lasting benefit for the disadvantaged. The aim of most sub-goals is apparently to bring developing countries into the mainstream model of 'unsustainable' development that caused the crisis which they will sustain.

G 1	End poverty in all its forms everywhere		
1.1	SDG Goals and Targets	Indicators	Positive Development
1.2	By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	1.1.1 Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)	Poverty cannot be measured in money alone. High-quality, low-impact living that provides resource security (eg. shelter, food, water) can cost less and save money on basic needs. This is a design problem.
1.3	By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1 Proportion of population living below the national poverty line, by sex and age 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	This requires changes to living environments, as simply increasing damaging and demoralizing jobs will continue to destroy the ecological basis of income. Reducing poverty does not address the 'disparities' of wealth, which are now recognized to do more harm
1.4	Implement nationally-appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	Social protection requires buildings that reduce the impacts of floods, heat waves, fires, etc. on people, the surrounding developments and natural environment, as well as protecting buildings from natural forces. Safe social environments require better design, not simply allocating funds to address outcomes of poor design
1.5	By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1 Proportion of population living in households with access to basic services 1.4.2 Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure	Equal rights to resources, services, property and technology requires more than legislation (which is unlikely anyway). 'Equal rights to economic and natural resources' presumes unlimited growth instead of measures that ensure equal access to life quality and opportunity. Land security requires planning/design so that land can support its functions and produce eco-services (eg. soil and water health). The PD social standard is therefore net increases in environmental justice, direct universal access to basic needs, and 'environmental space' or equal resource distribution.
1.a	By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events	1.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 1.5.2 Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)	'Building the resilience of the poor' to shocks and disasters (grin and bear it) is presumably a writing error as it is the built environment that needs to be resilient and at least have far fewer negative climate impacts. Fortifying the poor is not the same as

	and other economic, social, and environmental shocks and disasters	1.5.3 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 1.5.4 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	investing in 'prevention' through green infrastructure. The number of victims of disasters per capita is no measure of success if there are more disasters per capita due to the design of the built environment and climate change. Buildings can be carbon positive by absorbing more carbon than they emit over their lifespan as well as using far less carbon during resource extraction, production, construction, and operation
1.b	Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programs and policies to end poverty in all its dimensions	1.a.1 Total official development assistance grants from all donors that focus on poverty reduction as a share of the recipient country's gross national income 1.a.2 Proportion of total government spending on essential services (education, health, and social protection)	'Mobilization of resources ... through enhanced development cooperation ...' assumes that resources are infinite. Presumably, these will come from nature 'through donations or grants', rather than being taken from those to whom have more than their share. What is the plan to replace natural resources? There is no mention of how the western model of urban development wastes natural resources (eg. buildings using high embodied energy and materials for conspicuous consumption). Savings in this area could provide more resources for the disadvantaged
	Create sound policy frameworks at the national, regional, and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions	1.b.1 Pro-poor public social spending	'Spending' here makes no mention of investment in healthier and more productive social environments. Generating market transactions (GDP) by selling more clutter does not benefit the wider public. It enables more people to make 'money' (an artificial construct) so they can spend more on luxuries or waste. PD examines the relative social value from resource usage
G 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture		
2.1	SDG Goals and Targets	Indicators	Positive Development
2.2	By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round	2.1.1 Prevalence of undernourishment 2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)	This ignores the spatial dimension, so it could mean ensuring markets reach people, rather than ensuring food can be grown domestically in case of any form of social, environmental, political, or economic crisis. Building-integrated vegetable production can exist in window boxes or planting walls as well as urban farms

2.3	By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons	<p>2.2.1 Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age</p> <p>2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)</p> <p>2.2.3 Prevalence of anaemia in women aged 15 to 49 years, by pregnancy status (percentage)</p>	Addressing malnutrition through economic development and/or charity is neither empowerment nor autonomy. Impoverished people cannot always spend limited funds on 'healthy' foods if they live in urban 'food deserts'. Fresh, healthy rations cannot easily be provided by charities, if they rely on distant sources, since transport is unreliable in crises when food supplies are most needed. Building and village-integrated vertical farming requires relatively low-cost and low-impact infrastructure, such as green scaffolding, roof gardens or vertical greenhouses
2.4	By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	<p>2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size</p> <p>2.3.2 Average income of small-scale food producers, by sex and indigenous status</p>	Equal access to land in developing nations suggests that more natural land must be converted to conventional agriculture. 'Doubling agricultural productivity' is reminiscent of the 1960s industrial agricultural revolution which depleted the soil and water for future generations, especially today's poor. Increasing the volume of outputs, access to markets and non-farm employment may increase the incomes of some disadvantaged groups, but integration into the current economy does not create sustainable agriculture, let alone avoid the systemic discrimination against women, indigenous peoples, and others
2.5	By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	2.4.1 Proportion of agricultural area under productive and sustainable agriculture	Sustainable food production that helps maintain ecosystems, strengthen adaptability, and improve soil quality suggests organic agriculture, which is good. However, 'sustainable agriculture' is different than sustainable yield as the latter ignores the total land area used. Sustainability requires a steady reduction in farming land and its conversion back to natural habitats and wilderness. There is no mention of the human population in the indicators - which has increased 4 times in 100-year lifespan. The population problem is not easily addressed by built environment design, but it can reduce the impacts of over-population

2.a	By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	2.5.1 Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities 2.5.2 Proportion of local breeds classified as being at risk of extinction	Seed banks are necessary, but these need to be located in many disparate locations as most sites are vulnerable to earthquakes, fires, wars and the like. Moreover, it is also necessary to preserve diverse plants in diverse places. One way to preserve medicinal, endangered, or unique plants is in building-integrated ecosystems (eg. in green scaffolding) for future replanting in their original environments. This sub-goal mentions 'as internationally agreed'. Suggesting that current laws and agreements should be implemented does not address why they have apparently not been implemented. Many indicators are internally inconsistent. For example, the 'proportion of local breeds at risk of extinction' could go down as more breed actually become extinct
2.b	Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	2.a.1 The agriculture orientation index for government expenditures 2.a.2 Total official flows (official development assistance plus other official flows) to the agriculture sector	The emphasis on livestock does not address the well-established need to move to a more vegetarian diet in order to achieve food and water security, health, and other measures of socio-ecological sustainability. Does 'increasing investment' mean more spending on genetic preservation than in land clearing by and for livestock, or simply spending more than was previously being spent on livestock gene banks? The indicators emphasize spending more money, rather than saving resources, nature and, in turn, saving money through sustainable agricultural systems
2.c	Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	2.b.1 Agricultural export subsidies	Free trade has many complex adverse impacts on ecology and equity, including making it difficult for countries to enforce national laws that protect worker rights and safety, natural resources, and nature. Simply addressing some problems related to trade restrictions does not address its socio-ecological impacts and outcomes (as well as benefits). Markets do not function according to theory, and certainly have not protected the environment, despite complex but tokenistic transactions (eg. trading schemes)

	Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	2.c.1 Indicator of food price anomalies	Again, food price volatility is partly a result of large-scale vertically-integrated financial structures and price stability does not provide equal access to diverse urban-integrated food production systems. This sub-goal appears to be more about saving the market than saving the hungry. The linear economy works against sustainability. The market must be reformed to work in a symbiotic relationship with nature
G 3	Ensure healthy lives and promote well-being for all at all ages		
3.1	SDG Goals and Targets	Indicators	Positive Development
3.2	By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	3.1.1 Maternal mortality ratio 3.1.2 Proportion of births attended by skilled health personnel	There is no suggestion about how this will be implemented in places where women are viewed as property and have no control over their bodies
3.3	By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	3.2.1 Under-5 mortality rate 3.2.2 Neonatal mortality rate	Most childhood deaths can be traced to environmental destruction which, in turn, is caused by the built environment. For example, the cause may be 'illness' but this is a consequence of: polluted air, water, and soil; the lack of healthy food and housing; viruses caused by eating bushmeat and the animal trade more generally (eg. CO-VID 19); or over-population due to the inability of some women to access birth control
3.4	By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age, and key populations 3.3.2 Tuberculosis incidence per 100,000 population 3.3.3 Malaria incidence per 1,000 population 3.3.4 Hepatitis B incidence per 100,000 population 3.3.5 Number of people requiring interventions against neglected tropical diseases	Illnesses are expensive to 'intervene' and treat after acquired. However, well-designed environments that reduce or prevent air and water-borne diseases would not cost more than most unhealthy environments. For instance, passive forms of wastewater and sewage treatment (eg. Living Machines) can be inexpensive. The rate of infection per capita can be meaningless, in that, if the population is growing, the number of actual people sick (or human suffering) may be the same
3.5	By 2030, reduce by one third premature mortality from non - communicable diseases through	3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease	Healthy buildings include buildings that integrate people with natural materials and environments. Stress from overcrowded, polluted derelict and demoralizing

	prevention and treatment and promote mental health and well-being	3.4.2 Suicide mortality rate	environments can contribute to cancers. It is widely recognized that mental health is improved by daily access to nature and landscaped public open space
3.6	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders 3.5.2 Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	Strengthening current intervention methods in substance abuse is fine, but what is meant (or indicated) by 'prevention'? More education ('just say no') does not stop drug pushers. Healthy lifestyles may reduce drug abuse, but these require healthy, fulfilling built environments and social lives, among other things
3.7	By 2020, halve the number of global deaths and injuries from road traffic accidents	3.6.1 Death rate due to road traffic injuries	This does not mention the socio-ecological impacts of cars and thus the need to reduce driving itself, and not just providing safe, accessible public transport
3.8	By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs	3.7.1 Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods 3.7.2 Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group	Regardless of family planning and health services, many women are still forced, in effect, to have unwanted children - by religions, law makers, financial structures, cultures or patriarchal families, etc. If those that, in effect, force women to have babies had to support children for life (rather than the women alone) the underlying causes would be reduced
3.9	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality, and affordable essential medicines and vaccines for all	3.8.1 Coverage of essential health services 3.8.2 Proportion of population with large household expenditures on health as a share of total household expenditure or income	Universal health care is, or should be, a basic human right, instead of dependent on finance as suggested here. This is path dependency, as 'affordable' here relies on more economic growth. A sustainable built environment can reduce most kinds of illnesses (eg. an urban environment that is not overly dense, with lots of green open space, can reduce the spread of disease)
3.a	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	3.9.1 Mortality rate attributed to household and ambient air pollution 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) 3.9.3 Mortality rate attributed to unintentional poisoning	This requires built environment design that does not just do less environmental and human health damage from its embedded toxic materials and pollution. Buildings can increase the amount of clean or healthy air, water, and soil. This can occur relatively inexpensively, while creating jobs, through eco-positive retrofitting which uses passive solar design, natural systems and eco-services

3.b	Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate	3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older	Perhaps the most effective form of tobacco control has been the spatial approach: simply not allowing smoking inside or around buildings and public open spaces. The sensible approach would be to phase out the tobacco industry, even if this means pensioning off workers
3.c	Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all	3.b.1 Proportion of the target population covered by all vaccines included in their national program 3.b.2 Total net official development assistance to medical research and basic health sectors 3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis	Like several other sub-goals, this basically says that declarations and agreements (such as the Doha Declaration) should be respected and implemented, which is hardly an advance over existing strategies. Total net official development assistance to medical research and basic health sectors' is apparently relative to subsequent years. This means any positive trend in assistance (less bad) qualifies as sustainable. Preventing corporations from patenting ideas appropriated from traditional knowledge and avoiding the privatization of genetic resources would be good. However, this is not in the indicators. Again, the built environment can protect indigenous medicinal plants due to the potential variety of indoor or outdoor microclimates and their multiple other uses (eg. amenity, aesthetics, biophilic and economic values). Why not assist developing nations in harvesting components and producing some essential medicines, or at least produce them in those countries?
3.d	Substantially increase health financing and the recruitment, development, training, and retention of the health workforce in developing countries, especially in least developed countries and small island developing States	3.c.1 Health worker density and distribution	Agreeing to increase the health workforce is good, but is there a guarantee that this funding will be at the expense of other activities that would benefit the poor in other ways? Everything in the shopping list costs money and thus far funding has been zero sum. Once health workers are trained, will they be retained and sustained with good salaries and affordable housing?
	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness 3.d.2 Percentage of bloodstream infections due to selected antimicrobial-resistant organisms	Overly dense urban environments generally increase the impacts of pandemics. Early warning systems regarding environmental crises such as Tsunamis are not sufficient when there are no practical escape routes from large buildings or dense urban centres

G 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all		
4.1	SDG Goals and Targets	Indicators	Positive Development
4.2	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex 4.1.2 Completion rate (primary education, lower secondary education, upper secondary education)	In order to ensure free and equitable education, suitable and dispersed facilities must be necessary. Low-cost learning environments need not be crowded, unhealthy or otherwise obstruct learning. Learning is measurably improved by well-designed classrooms that provide natural daylighting, fresh air, healthy materials, and substantial indoor plants - which do not cost extra
4.3	By 2030, ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education	4.2.1 Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex 4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	High quality, secure childcare can often be provided relatively inexpensively in buildings that support other economic activity. For example, large office buildings and even factories can (be given offsets to) be modified for environmentally-appropriate spaces for the children of their workers and others in the community
4.4	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	Equal access to education does not usually happen without affirmative action to ensure affordable shelter, food, clean air, and water. Hotels could be converted into homeless shelters or school dormitories and classrooms so they can 'afford' to have free education
4.5	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	Training programs that are combined with redesigning or retrofitting buildings and cities would teach diverse practical skills and knowledge while improving public environmental amenities and facilities (eg. emergency shelters, 'urban acupuncture' programs, or projects by engineers without borders and habitat for humanity)
4.6	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile, and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	Shouldn't children in vulnerable situations be removed from those situations or accommodated in other ways to ensure equal access? Eliminating gender and racial disparities will not occur unless steps are undertaken to counteract prejudice. That is, while quotas may be necessary for rapid change, programs need to be undertaken to change attitudes among the entitled, rather than merely educating the oppressed

4.7	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	Mixed-use community centres can provide flexible spaces for locally-targeted social programs such as remedial reading, while helping to build community and creating a sense of belonging and mutual support
4.a	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Education in sustainable development needs to cover more than personal attitudes, cultural awareness, and sustainable lifestyles. Systems change must come from those empowered to write and sign such international agreements. The indicator focuses on students, not educating decision makers. For example, those that wrote these development sub-goals do not seem to have a background in critical thinking, as most of them are ensconced in the culture that caused the problems. It also places the burden for change on individuals, such as teachers, who are not in a position to reform or redesign physical and institutional systems, let alone develop and implement government policies
4.b	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive, and effective learning environments for all	4.a.1 Proportion of schools offering basic services, by type of service	This is a rare instance of a sub-goal mentioning the built environment, but it does not mention ecologically sustainable design. The indicator does not concern facilities, just services. Why aren't the building or upgrading of educational facilities prioritized by need, not by the 'proportion of schools offering services'
4.c	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in	4.b.1 Volume of official development assistance flows for scholarships by sector and type of study	It is 2020 at time of writing, so it would be informative to know how many scholarships were added per capita and relative to the changing population. With the internet, education should be available to all and education could be means tested, so any fees would depend on income, opportunity and property. The only indicator is the volume of scholarships by 'sector and type of study' which suggests that the listed fields are seen as priorities. These fields are generally associated with industrial development and economic growth, rather than sustainability. Why are biology, ecology, or the social sciences (or sustainable development itself)

	developed countries and other developing countries		not mentioned, for example? Why not ensure that universities include people from disadvantaged regions?
	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.c.1 Proportion of teachers with the minimum required qualifications, by education level	Substantially increasing teachers is different from increasing the proportion of teachers with more qualifications. Shouldn't teacher training include qualifications concerning sustainability? This would be particularly appropriate in developing States as they have the potential to leapfrog other nations that are harnessed by the old model of industrial development
G 5 Achieve gender equality and empower all women and girls			
5.1	SDG Goals and Targets	Indicators	Positive Development
5.2	End all forms of discrimination against all women and girls everywhere	5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex	Legal frameworks are a powerful form of education and social change. Many such legal frameworks have not been enforced due to discrimination in the legal system
5.3	Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual, or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age 5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence	It is unclear why there is a 12-month cut off for reporting as the damaging effects of abuse do not have a use-by date. How does charting a trend, calculated annually, reduce violence against women? Why not provide women genuinely safe places to live when there is violence in the family or before they are sold into slavery or trafficked. Community centres can double as places to inform women about rights and options. These require physical spaces not just policing
5.4	Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	5.3.1 Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18 5.3.2 Proportion of girls and women aged 15–49 years who have undergone female genital mutilation/cutting, by age	It is useful to know the number of harmful practices, but the sub-goals do not suggest any solutions. Indicators about the scale of the problem. For example, how are children aware that they have rights and what provisions exist for children who want help to escape child marriage and genital mutilation?
5.5	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age, and location	The term 'nationally appropriate' must be defined, as this loophole can nullify the whole sub-goal. Like other targets and indicators, this information is important to collect, but 'valuing unpaid care' is not a solution. Since the indicator assesses the time spent in unpaid

	promotion of shared responsibility within the household and the family as nationally appropriate		domestic and care work, is the aim to reduce time spent in unpaid work in total, to share the work, to pay for the work, or get recognized and appreciated?
5.6	Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life	5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments 5.5.2 Proportion of women in managerial positions	This requires quotas for a while. It does not address the reality that women in authority are treated differently from those in non-leadership positions. Also, those in research, professional and academic positions are still subject to various forms of covert exclusion
5.a	Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Program of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	5.6.1 Proportion of women aged 15–49 years who make their own informed decisions regarding sexual relations, contraceptive use, and reproductive health care 5.6.2 Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information, and education	How can it be assumed that people know if women make their own informed decisions regarding relationships in patriarchal cultures? Will they be surveyed? Similarly, the existence of laws does not help much in a sexist society. What would make young people of women feel safe enough to approach agencies for assistance in discriminatory societies? Would family mediation be involved?
5.b	Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws	5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	'In accordance with national laws', again, provides an escape hatch. Equal individual rights to land and resources, in isolation, can conflict with sustainability, which is about more than the equitable distribution of the spoils. Another indicator might be the portion of land reserved for the public good both in the country (natural resource protection, etc.) and the city (public parks and green open space) - as opposed to private land that can be exploited in unsustainable ways.
5.c	Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women	5.b.1 Proportion of individuals who own a mobile telephone, by sex	Recycling phones for their metal components is a toxic occupation. Phones could be updated and distributed to women in disadvantaged regions, but it is important to provide examples of how phones can be used for small businesses that benefit their communities
	Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the	5.c.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment	Like most other sub-goals, this is focused on spending money. Budgets are easily reversed as there are always urgent intervening circumstances. The sub-goal is about policies and legislation, but the indicator is

	empowerment of all women and girls at all levels		about systems for making and tracking expenditures. Normally, indicators should concern outcomes
G 6	Ensure availability and sustainable management of water and sanitation for all		
6.1	SDG Goals and Targets	Indicators	Positive Development
6.2	By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services	Water 'services' implies commercial ownership of water. Universal access requires building-integrated rainwater collection and purification, as well as plumbing systems
6.3	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water	There are low-cost, low-impact composting toilets that would pay for themselves in medical care savings, environmental health, local employment, etc. This is not complex given that, decades ago, global Small Pox vaccinations were organized. There is no reason that this should take 10 years, assuming an organization exists with the capacity to oversee this (eg. the UN?)
6.4	By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of domestic and industrial wastewater flows safely treated 6.3.2 Proportion of bodies of water with good ambient water quality	It would not cost that much to advise all industries immediately that use hazardous wastes and materials that dumping in waterways may be penalized by prison terms as well as fines. This is one goal that includes an environmental outcome (reducing pollution). However, it does not include 'improving' existing water quality through actions like netting plastic and other waste from rivers or river-integrated living machines
6.5	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	There are currently no 'sustainable withdrawals', however efficient, due to the global population and competing demands for water. Rainwater tanks could be provided in poorer areas where there is adequate rainfall (narrow water tanks can double as insulating walls in hot or cold climates). People could be given water purification tablets and taught how to purify dirty water with passive technologies like 'water cones'
6.6	By 2030, implement integrated water resources management at all levels, including through	6.5.1 Degree of integrated water resources management	Some cooperative arrangements have been made without adequate mapping of water flows and provision for droughts. In sustainable development, water

	transboundary cooperation as appropriate	6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation	resources for the environment should be the bottom line, not proportioned as if nature were a stakeholder
6.a	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes	6.6.1 Change in the extent of water-related ecosystems over time	It is 2020 and little was done to protect water ecosystems and biodiversity. This huge aim, the full restoration of ecosystems, was set to be achieved 10 years before its tributary factors were (in other sub-goals), yet those actions would need to occur first.
6.b	By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse technologies	6.a.1 Amount of water-and sanitation-related official development assistance that is part of a government coordinated spending plan	Again, this must be done before 6.6 can be achieved. However, it could be achieved relatively inexpensively using natural building-integrated systems such as green/living roofs, walls, and scaffolding and numerous new organic or low-impact water filtration systems. This requires on-ground action, however, not just spending plans. The amount of a government coordinated spending plan has little to do with the physical modifications that the sub-goal necessitates
	Support and strengthen the participation of local communities in improving water and sanitation management	6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	This requires education in building or town integrated landscaping and composting systems, but the sub-goal and indicator seem to concern the amount of bureaucracy, not community engagement or outcomes
G 7	Ensure access to affordable, reliable, sustainable and modern energy for all		
7.1	SDG Goals and Targets	Indicators	Positive Development
7.2	By 2030, ensure universal access to affordable, reliable, and modern energy services	7.1.1 Proportion of population with access to electricity 7.1.2 Proportion of population with primary reliance on clean fuels and technology	Why not limit it to renewable energy (eg. community-scale wind generators, solar cells, etc.)? Solar cells on roofs in sunny but poor regions can now be funded through internet tools that create global markets
7.3	By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 Renewable energy share in the total final energy consumption	Is this about meeting a bigger share of a growing energy demand or reducing overall demand? The sooner fossil energy is retired, the sooner that financial, resource and health costs will be saved
7.a	By 2030, double the global rate of improvement in energy efficiency	7.3.1 Energy intensity measured in terms of primary energy and GDP	Similarly, does this mean increase efficiency in order to increase the production and consumption of energy?

7.b	By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	7.a.1 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems	What does "facilitate access to ...cleaner fossil-fuel technology and promote investment in energy"? Why aim to increase energy usage? Why advocate 'cleaner fossil-fuel technology' (an oxymoron) in sustainability sub-goals at all? Cleaner fossil fuels are not relevant to a sustainability plan and could defeat the purpose of the rest of the SDGs. One does not need policies to continue on the wrong path. Like so many other targets and indicators, this is about economic growth, not social or ecological sustainability
	By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programs of support	7.b.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)	What precisely does 'in accordance with their respective programs of support mean'? This appears to leave energy upgrades to the developing countries alone. "Installed renewable energy-generating capacity in developing countries" is not the same as reducing 'fossil-fuel based' energy infrastructure, technology, and services. Measuring the good, without counting increases in the bad, or producing more energy per capita in places that may be experiencing a population boom, is not genuine (net) progress on a global level
G 8	Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all		
8.1	SDG Goals and Targets	Indicators	Positive Development
8.2	Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries	8.1.1 Annual growth rate of real GDP per capita	GDP has no place in sustainability goals, as explained in many books by economists and sustainability advocates over 50 years. GDP correlates poorly with environmental or social justice. There can also sometimes be an inverse relationship as environmental crises stimulate economic transactions and therefore GDP. Bad growth is worse than no growth at all
8.3	Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation,	8.2.1 Annual growth rate of real GDP per employed person	'Labour intensive' work is good for fuller employment but does not always mean healthy jobs that involve diverse activity and life-long learning. The emphasis should be more on safe, meaningful work with social

	including through a focus on high-value added and labour-intensive sectors		value and sustainable outcomes, rather than GDP. In SDGs, economic sub-goals should not prioritize sustaining a poorly-designed, unsustainable economy
8.4	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	8.3.1 Proportion of informal employment in total employment, by sector and sex	New small and medium enterprises are generally responsive to local needs, but here there is no mention of social or environmental value. The emphasis is entirely on job creation and income, instead of on the creation of socio-ecologically productive services and products. In a set of sustainability goals, it is surprising that there is no mention of creating jobs that improve environmental or human health and well-being. Economic gain should no count harmful production systems or products
8.5	Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programs on Sustainable Consumption and Production, with developed countries taking the lead	8.4.1 Material footprint, material footprint per capita, and material footprint per GDP 8.4.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Efficiency in consumption does not indicate a goal of less consumption overall. Humans consume more products over time, even though each product wastes less. A well-known problem with confusing efficiency and impact reduction is the Jeavon's Paradox or the Rebound Effect, where resources saved are used for other things that are inherently wasteful. Material flows generally do not assess the positive social and environmental values and outcomes relative to materials consumed. Buildings can have multiple positive public benefits in addition to being efficient
8.6	By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	8.5.1 Average hourly earnings of employees, by sex, age, occupation, and persons with disabilities 8.5.2 Unemployment rate, by sex, age, and persons with disabilities	Unless there is a de facto upper limit to income, this is meaningless, as some make a million times more than others per hour. If the mega-rich do not want to pay taxes, they could be required to donate funds above a maximum income to a (legitimate) charity of their choice (eg. one that provides work for the disabled)
8.7	By 2020, substantially reduce the proportion of youth not in employment, education, or training	8.6.1 Proportion of youth (aged 15–24 years) not in education, employment, or training	There is an infinite amount of work needed to create a sustainable society, which pay back and also provide education and/or training, so there is no excuse for not providing job opportunities for all unemployed youth
8.8	Take immediate and effective measures to eradicate forced	8.7.1 Proportion and number of children aged 5–17 years engaged in child labour, by sex and age	This is a relatively strong statement yet there is no mention of allocating funds (unlike most targets and

	labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms		indicators herein). There is no hint as to how this would be implemented as it involves investigating government corruption and police reform, not just chasing criminals. It is unclear why "take immediate and effective measures" is the goal, not eradication, and the indicator only includes child labour, not trafficking, slavery and forced labour
8.9	Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	8.8.1 Fatal and non-fatal occupational injuries per 100,000 workers, by sex and migrant status 8.8.2 Level of national compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	Again, 'promoting' safe environments is vague. Why do the parties not agree to "legislate to protect ..." The building industry is particular precarious for construction workers, and many buildings in developing nations are still substandard and risky for their occupants as well. Buildings should be central in sustainability goals as they are a central to sustainability problems and solutions
8.10	By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products	8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate	Growth in tourism must consider the design of facilities in sensitive environments where sustainable tourism usually exists. A new kind of built environment design is required to increase the health of the ecosystems and cultures that people come to experience
8.a	Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	8.10.1 (a) Number of commercial bank branches per 100,000 adults and (b) number of automated teller machines (ATMs) per 100,000 adults 8.10.2 Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider	The 'capacity' to provide financial services to all exists now, but it is not seen as profitable. Access to bank accounts is relevant to economic growth, but SGDs and indicators should link to sustainability. There is no mention of eliminating corruption in the banking sector or ensuring banks improve their sustainability policies
8.b	Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade - related Technical Assistance to Least Developed Countries	8.a.1 Aid for Trade commitments and disbursements	Trade is generally exploitative of creative works and environments in developing countries due to the power imbalances. There is no mention of preventing the common sustainability problems associated with trade. SDGs should be about sustainable development and thus sustainability issues surrounding trade. That is, it should discourage trade that reduces sustainability
	By 2020, develop and operationalize a global strategy for youth employment and	8.b.1 Existence of a developed and operationalized	Why are 'sustainability objectives' of the ILO's Global Jobs Pact, if any, not mentioned? Do they encourage jobs that support sustainability, or do they only concern

	implement the Global jobs Pact of the International Labour Organization	national strategy for youth employment, as a distinct strategy or as part of a national employment strategy	traditional (neo-classical) economic growth? How is the existence of a national strategy an indicator of a global strategy for youth employment?
G 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		
9.1	SDG Goals and Targets	Indicators	Positive Development
9.2	Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.1.1 Proportion of the rural population who live within 2 km of an all-season road 9.1.2 Passenger and freight volumes, by mode of transport	There is no mention of green infrastructure that can help compensate for some of the damage caused by past infrastructure. Economic development and affordable and equitable access are included but not the environment. Although public transport is mentioned below, the indicators suggest more transport is good. Traffic 'volume' is seen as a measure of sustainability despite the ecological impacts
9.3	Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	9.2.1 Manufacturing value added as a proportion of GDP and per capita 9.2.2 Manufacturing employment as a proportion of total employment	Sustainable industrialization is not defined, but the indicators are manufacturing (hence more material flows). It says more people should work in industry. Why 'raise industry's share of employment' as opposed to socially-beneficial activities such as education, health and welfare? It emphasizes GDP instead of reducing the amount of dehumanizing work in industrial modes of production. GDP is not a sustainability indicator
9.4	Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	9.3.1 Proportion of small-scale industries in total industry value added 9.3.2 Proportion of small-scale industries with a loan or line of credit	Here infrastructure refers to finance as opposed to physical infrastructure. It seems that this sub-goal would be better suited to another heading, such as G 8. There is no link to socio-ecological sustainability. It appears to support loans for any (even unsustainable) industrial enterprises rather than prioritize loans for new green and ethical businesses.
9.5	By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound	9.4.1 CO2 emission per unit of value added	Are 'CO2 emissions per unit of value added' about the added financial and industrial value? If so, this has little to do with sustainability. Upgrading infrastructure and industries with efficient technologies does not ensure that the products increase overall social or ecological sustainability. Likewise, an upgraded factory

	technologies and industrial processes, with all countries taking action in accordance with their respective capabilities		that produces cigarettes or bombs more efficiently with cleaner technology and less carbon emissions is not really a gain for sustainability and the general public. How is the waste from the retrofitting managed?
9.a	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	9.5.1 Research and development expenditure as a proportion of GDP 9.5.2 Researchers (in full-time equivalent) per million inhabitants	Pure research and innovation are good, but if they are only for the sake of economic development, they may not contribute to sustainability. For instance, many past innovations initially funded for the military have found civilian applications. Yet some of these proved to be harmful to human or environmental health. Similarly, market-led innovations often lead people into buying more products that have little public value and soon become waste. This sub-goal asks governments to spend more but does not encourage research and innovations that solve problems and pay back any (unavoidable) environmental impacts
9.b	Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States	9.a.1 Total official international support (official development assistance plus other official flows) to infrastructure	Again, facilitating resilient infrastructure says little about sustainability goals - as opposed to conventional engineering for more long-lasting structures. The sub-goals should consider the sustainability implications of infrastructure development, and not just call for more economic growth (road transport, dams, pipelines, airports)? While there is environmental impact assessment in many countries, it is retrospective and are often by-passed by corrupt politicians and officials
9.c	Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities	9.b.1 Proportion of medium and high-tech industry value added in total value added	There is nothing about sustainability here, merely adding economic and technological value. It says: "ensuring a conducive policy environment" rather than developing 'environmental policies', such as ethical technology assessment. SDGs should have a sustainability standard, rather than just seeking to promote more diversified commodities for greater sales
	Significantly increase access to information and communications technology and strive to provide universal and affordable access to	9.c.1 Proportion of population covered by a mobile network, by technology	This seems to be similar to 5.b.1 which is about the proportion of women with phones. This is a good thing for growth, but it has complex implications for socio-ecological sustainability that should be considered.

	the Internet in least developed countries by 2020		Since it is 2020, the effects on social and environmental sustainability should be assessed
G 10	Reduce inequality within and among countries		
10.1	SDG Goals and Targets	Indicators	Positive Development
10.2	By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population	Income growth of the poor at a higher rate than the average is good but should be compared to the wealthiest 40%. Income of poor may slower than costs of basic necessities (eg. healthcare), and market choices (eg. housing) may not be sustainable ones
10.3	By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	10.2.1 Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities	Social inclusion and discrimination require some form of integration and the removal of unconscious and systemic bias, not just income. When people are segregated by physical environments (eg. lower-quality residential area) education is not enough. Witness the disproportionate way minorities died of COVID-19
10.4	Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	Eliminating discriminatory laws and promoting appropriate ones is easily measured by the number of bad laws that are repealed and replaced. However, the indicator here is subjective. How many 'report' having personally 'felt' discriminated against in a way that is prohibited by international law is not a measure of actions taken to reduce inequality
10.5	Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	10.4.1 Labour share of GDP 10.4.2 Redistributive impact of fiscal policy	The clear trend is still toward greater disparities of wealth, despite rising wages in some places. This causes more entitlement and domination on one side and resentment on the other, leading to future conflict
10.6	Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations	10.5.1 Financial Soundness Indicators	Should financial institutions be trusted with social equality and protection given the abuses of power in that sector, even with more regulation? Financial markets tend to cause socio-ecological crises. Urban design can potentially solve these problems
10.7	Ensure enhanced representation and voice for developing countries in decision-making in global	10.6.1 Proportion of members and voting rights of developing countries in international organizations	Why not give social and ecological sustainability (or their advocates) a voice in economic, political and financial institutions as well as stakeholders? Every

	international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions		environmental institution has representatives of economists, industrialists, or developers for balance, but not the reverse. There is no voice for those who represent a sustainable ecological base and public estate, which are the foundations of the economy
10.a	Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	<p>10.7.1 Recruitment cost borne by employee as a proportion of monthly income earned in country of destination</p> <p>10.7.2 Number of countries with migration policies that facilitate orderly, safe, regular and responsible migration and mobility of people</p> <p>10.7.3 Number of people who died or disappeared in the process of migration towards an international destination</p> <p>10.7.4 Proportion of the population who are refugees, by country of origin</p>	The SDGs do not prepare for environmental refugees. There is nothing here or below that will begin to prepare society for the extreme migration that is likely to come. Facilitating migration does not address the reasons that force people to migrate against their will. There is no mention of solving environmental problems in the countries of origin. Also, some of the recruitment and exploitation of cheap foreign labour is for major urban development projects (eg. for which Dubai is well known), yet no mention is made of using local (disadvantaged) people to avoid disruption at both the sites of construction and at site of labour recruitment.
10.b	Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements	10.a.1 Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff	Differential treatment is fine but it should be for sustainability matters, not just market acceleration and disruption of local economies and cultures. How will the WTO agreements help to protect and restore the Amazon region, for example? What does this sub-goal slow down or reverse socio-ecological damage?
10.c	Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes	10.b.1 Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development assistance, foreign direct investment and other flows)	Financial redistribution is good, but it should be to ensure investments and resource flows are directed toward sustainable development, as opposed to increasing resource flows for conventional economic growth? Does "in accordance with their national plans" when they are not sustainable plans, mean financial assistance should go to 'unsustainable' growth. Investing in developing nations will not help them if it locks them into the traditional destructive development. Again, there are no sustainability criteria, and the indicators seem to advocate more resource flows

	By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent	10.c.1 Remittance costs as a proportion of the amount remitted	'Transaction costs of remittances' seems rather specific. Does this mean that climate change is a lost cause, so the goal is to facilitate migration. What sub-goals apply to those left behind in ravaged environments and those in crowded cities where the surplus workers will arrive?
G 11	Make cities and human settlements inclusive, safe, resilient and sustainable		
11.1	SDG Goals and Targets	Indicators	Positive Development
11.2	By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing	Upgrading is good, but slums are almost by definition not upgradable. Since there is no strategy here, this is a delay tactic. Why not allow the residents of slums to move to safe and affordable housing in better areas?
11.3	By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities	Roads should of course be safe, but there is no mention of new ways to improve the way roads are made and repaired, so conventional environmentally-destructive roads are implied. Public transport allows for more job accessibility, but not more social inclusion, mobility, and integration of the vulnerable groups. Transport planning should prioritize isolated and disadvantaged areas, since the built environment has exacerbated the discrimination against other races and classes as well as women, elderly and disabled
11.4	By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	11.3.1 Ratio of land consumption rate to population growth rate 11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically	Ratio of land consumption rate to population growth rate' does not deal with sustainability at all. Saying that planning capacity should be enhanced does not suggest ways to reform traditional methods of planning and management. Otherwise, community engagement may continue to only mean democracy in consumption.
11.5	Strengthen efforts to protect and safeguard the world's cultural and natural heritage	11.4.1 Total per capita expenditure on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional, and local/municipal)	Here the emphasis is again on strengthening 'efforts' and expenditure, whereas it could strengthen outcomes or capacity. It does not say where expenditures should be cut elsewhere. Digital surveillance of heritage sites with fast response teams might be more effective than measuring spending 'by source of funding'

11.6	By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters	Measuring the costs in lives and GDP due to disasters is not relevant to genuine progress. There is a mention of the poor and most vulnerable, but the indicators only concern numbers of people and economic losses. The built environment is central to preventing and recovering from environmental disasters on every level. For example, urban and building design are central to climate change at the global/local scale, and urban design often blocks escape routes from cities or buildings in civil or environmental disasters
11.7	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	What does reduce the per capita environmental impact of cities even mean? Larger cities having a greater environmental impact but less per capita would still be more damaging to the environment. Is pollution ok if there are more people? Why not improve conditions at the source or relative to the scale of the problem?
11.a	By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities 11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months	Green public spaces per capita is good but not the key indicator. What matters more is how such spaces and vegetation will be increased and geographically distributed according to need. This requires design for crime prevention (not just counting victims) that is not at the expense of gardens or vertical planting schemes
11.b	Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	11.a.1 Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space	Fiscal space is budgetary flexibility. Why is that more sustainable than physical links for environmental and social benefit, such as green corridors or public transport? Are the aims of regional linkages merely for economic growth, efficiency and convenience?
11.c	By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line	11.b.1 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 11.b.2 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	This is couched in negative terms. For instance, climate 'mitigation and adaptation' and 'resilience to disasters' instead of planning and design that 'prevents' climate change or disasters and their impacts where unavoidable. Proactive planning of the urban environment can anticipate and prevent the natural causes of future disasters (apart from gamma rays and volcanoes). Policies and plans that are 'integrated' are not necessarily design actions and outcomes that meet

	with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels		multifunctional aims. This requires an understanding of sustainable design as opposed to 'risk management at all levels' alone. The set of sub-goals are written in ignorance of sustainable planning and design fields.
	Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	No suitable replacement indicator was proposed	Building more buildings in itself is not sustainable, given current modes of design, production and construction. Using local materials is an extremely limited consideration. It could mean an excess of mined materials or native forest exploitation, rather than, for instance, mycelium-based materials that sequester waste and occupy little land in production
G 12 Ensure sustainable consumption and production patterns			
12.1	SDG Goals and Targets	Indicators	Positive Development
12.2	Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	12.1.1 Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production	The Framework is vague, calling for increasing the net contribution of economic activities to resource efficiency and productivity, poverty eradication, social development and environmental sustainability. Does this mean more investment in less harmful consumption, or changing the type and design of products into those that benefit the wider public? Many products are resource efficient and productive but provide no public purpose or are inherently wasteful
12.3	By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1 Material footprint, material footprint per capita, and material footprint per GDP 12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Sustainable management usually means sustainable yield, which does not preserve and expand natural resource stocks and ecological carrying capacity. If consumption grows, a reduced material footprint per capita or per GDP could still reduce total resources
12.4	By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	12.3.1 (a) Food loss index and (b) food waste index	Excessively processed food and most fast food products embed a substantial amount of food waste in terms of lost health benefits and pre-consumer waste. The calorie/carb to health ratio should be assessed. Unused food from restaurants or other food services that is delivered to the poor is not usually wasted

12.5	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement 12.4.2 (a) Hazardous waste generated per capita; and (b) proportion of hazardous waste treated, by type of treatment	This goal says to comply with existing commitments or laws to 'reduce' the release of harmful chemicals into the air, water and soil. The number of parties agreeing does not mean much if the goal is to get people to obey laws, rather than have better laws. This sentence suggests that 'environmentally sound management' (activity) can be achieved alongside the release of pollution into the environment (outcome). Then it counts the hazardous waste generated 'per capita' or 'waste treated' which, yet again, does not look systems design or product substitution for waste prevention
12.6	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1 National recycling rate, tons of material recycled	This goal existed decades ago but included 'redesign'. 'Prevention, reduction, recycling and reuse' does not equal system and product redesign to create useful functions that are intrinsically less wasteful. Recycling is good, but waste should not be designed-in.
12.7	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	12.6.1 Number of companies publishing sustainability reports	Sustainability reporting has been around a long time but companies are very selective in how they present information, often using decoys or comparisons to things that are worse. Encouraging more reporting without changing the substance and standards of reporting increases their 'wasted' transaction costs.
12.8	Promote public procurement practices that are sustainable, in accordance with national policies and priorities	12.7.1 Degree of sustainable public procurement policies and action plan implementation	Why promote a current practice as a sustainability sub-goal? This again assumes adopting or implementing existing national policies and priorities is sufficient, rather than, at the least, disseminating exemplars.
12.a	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Same as 4.7.1. Teaching consumers to make better choices does not reduce lifestyle choices that are harmful to sustainability. Awareness is not behaviour or systems change. This requires sustainable built environments. 'Harmony with nature' is meaningless.
12.b	Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable	12.a.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)	More scientific studies and technological innovation is good but, meanwhile, existing non-technological means of moving towards sustainable consumption and production would be better. For instance, passive solar

	patterns of consumption and production		and multifunctional retrofits or insulation can be cheaper than renewable energy in many cases
12.c	Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	12.b.1 Implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability	Why not mention impacts on the sensitive ecosystems and cultural/natural heritage that most tourist places use and lose, rather than jobs. How would 'standard accounting tools' monitor the environmental aspects of sustainability tourism?
	Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption)	The removal of fossil fuels subsidies is essential, but fossil-fuels should also at least pay for their costs (the old polluter pays principle). Their human and environmental health impacts are still not offset and their production and use are still subsidized. The sub-goal reads as if fossil fuels should continue where needed by poor communities. This uses poverty as a rationalization to perpetuate harmful fuels and products - which is a subsidy. Further, it harms the users, yet does not take into account the medical costs (or more likely the pre-mature deaths) which poor communities cannot afford, let alone their long-term environmental costs. Is this to create a market for dumping fossil fuels when they are gradually replaced in wealthier parts of the world? Why not use cross-subsidies to bring renewable energy to poor settlements first?
G 13	Take urgent action to combat climate change and its impacts*		
13.1	SDG Goals and Targets	Indicators	Positive Development
13.2	Strengthen resilience and adaptive capacity to climate - related hazards and natural disasters in all countries	13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 13.1.2 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction	This is similar to sub-goals 1.5, 11.b and are 'the ambulance at the bottom of the cliff' approaches. Resilience and adaptive capacity refer to what happens during and after an adverse event occurs. The built environment can greatly reduce future natural disasters and urban climate change (the heat island effect) which affects global weather (the butterfly effect). Why not call for sustainability standards and improvements in urban microclimates? Why not count deaths in

		strategies in line with national disaster risk reduction strategies	absolute terms, rather than relative to a mushrooming population?
13.3	Integrate climate change measures into national policies, strategies and planning	13.2.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications 13.2.2 Total greenhouse gas emissions per year	Goals, policies and strategies do not implement themselves. They will not be implemented, even if adopted, without an understanding of how biophysical systems need to change in order to reduce climate change. Declarations without new principles for physical planning and design are business-as-usual
13.a	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Mitigation, impact reduction and adaptation are negative concepts. Awareness of proactive design solutions are necessary to correct existing urban heat islands, sequester carbon, prepare for sea level rise, etc. The indicator is the same for 13.3.1, 4.7.1 and 13.3.1 and 12.8.1. How are they summed?
	Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing-jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	13.a.1 Amounts provided and mobilized in United States dollars per year in relation to the continued existing collective mobilization goal of the \$100 billion commitment through to 2025	Spending money in developing nations would improve equity but might not be effective in addressing climate change if the built environment is not transformed in both developed and developing nations. If the developing countries adopt the same standard of high-embodied energy and environmentally-damaging 'green' building (even if mitigated by energy-efficient operation and renewable energy), the material/energy flows will be unsustainable. The Green Climate Fund and UN focus on financial mechanisms with cooperative decision making, governance and transparency which is important but only half the issue (if that). 'Greener growth' is quite different from net-positive design and development. Funding should be contingent on development that is net-positive
13.b	* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.		The UN has always set standards that are years behind those advocated by sustainability advocates. Since it is on the same path, why not skip ahead and get closer to the leading edge. Why not engage with those who are out in front, instead of only considering the views of the establishment?

	Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	13.b.1 Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications	This provision does not suggest solutions for small islands that may disappear under current planning and management, even if their current 'capacity is raised'. Focusing on women, youth and local and marginalized communities in developing or small island nations is not a 'mechanism for raising capacity for effective climate change-related planning and management' - unless these vulnerable groups are responsible for planning and management of climate change solutions.
G 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development		
14.1	SDG Goals and Targets	Indicators	Positive Development
14.2	By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	14.1.1 (a) Index of coastal eutrophication; and (b) plastic debris density	These targets and indicators exclude many areas where gains could be made and lack any indication of what could be done or how. For example, will poor people be paid to collect plastic from rivers and beaches? How does plastic debris density prevent anything?
14.3	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	14.2.1 Number of countries using ecosystem-based approaches to managing marine areas	Using ecological restoration and ecosystem-based approaches to managing marine and coastal ecosystems is good. However, it should consider tracing problems back to their source (as in forensic criminal investigations) rather than trying to restore ecosystems and clean up messes after it is too late. How will coastal ecosystem's resilience be strengthened to avoid changing coastlines and climates?
14.4	Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations	It is unclear how ocean acidification can be addressed through scientific cooperation in agreed representative sampling stations. Causes, not just 'impacts', should be addressed, (eg. built environment, reforestation, etc.)
14.5	By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based	14.4.1 Proportion of fish stocks within biologically sustainable levels	This indicator is like counting the proportion of livestock. The sub-goal appears to be concerned only with fish resources (stocks) but fish are dependent on complex ecosystems and food chains. To "restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield" shows

	management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics		that this section pre-dates the modern sustainable development movement. Maximum sustainable yield was a term used in the 1930s and concerned economic growth. It did not include the concept of social or ecological sustainability. SDG should concern the sustainability of oceans in addition to fish stocks
14.6	By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	14.5.1 Coverage of protected areas in relation to marine areas	This has a biophysical benchmark, as opposed to calling for spending policies with no stated priorities or budget. But it is an extremely low bar. If development were sustainable (net-positive) then 100 per cent could be protected while allowing for harvesting. How much is defined as 'not protected' now. Does 10% mean a loss of more coastal and marine areas or a clawback?
14.7	By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation ²	14.6.1 Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	Eliminating subsidies and illegal fishing would be good. However, it is again not a 'goal' if it is already a law. 'Stop committing crimes' is hardly a sustainability goal. The laws might not achieve sustainability even if they were enforced. The indicator is the "degree of implementation of international instruments aiming to combat illegal ...". What is the reason for not assessing the decline in illegal, unreported or unregulated fishing, rather than the aims of international instruments? Why exclude national instruments? Why does the indicator not assess the subsidies or the elimination of subsidies? Why differentiate developing countries instead of providing some form of cross-subsidy to ensure that no one is unduly burdened by contributing to the restoration or increase of the global commons?
14.a	By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	14.7.1 Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries and all countries	This goal says "increase the economic benefits of marine resources" to least developed countries, apparently without reducing the growing exploitation of the seas by developed nations. Why is the goal to increase fisheries as a proportion of GDP, when GDP is irrelevant to sustainability? Why is increasing the net consumption of fish a good thing, and why include it in a set of sustainability targets and indicators?

14.b	Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries	14.a.1 Proportion of total research budget allocated to research in the field of marine technology	The indicator is about increasing the total research budget allocated to marine 'technology transfer', especially to "enhance the contribution of marine biodiversity to the development of developing nations". While this may include technology that is not just about sustainable fishing, it does not state that technology should enable the restoration of ocean health. Does the indicator refer to a portion of the 'total research budget' or the budget of the recipient states? Does this budget allocation apply to land-locked developing nations or just island developing States? Again, it is about changes in spending (with no realistic means of increasing expenditure) rather than outcomes. It does not indicate the items that it would either withdraw from funding or apportion new funding to.
14.c	Provide access for small-scale artisanal fishers to marine resources and markets	14.b.1 Degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries	Access for artisanal fishers to resources and markets should including protecting their threatened fishing stocks. Does this exclude fishers that use explosives?
	Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want".... 2 Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate.	14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nations Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources	This calls for existing laws to be adopted and/or implemented. The Law of the Sea does not deal sufficiently with sea level rise. It is concerned with legal issues surrounding the allocation and sustainable yield of the ocean's resources (boundaries, rights, use, economic zones, etc.). The legal issues involved with sea level rise are complex, not to mention the ubiquitous ecological and social consequences of sea level rise. Ecological issues include the contamination of aquifers with salt (as much underground water is interconnected), and biodiversity dependent on particular coastal ecosystems (eg. sea turtle nest areas). Social issues include the sinking of island nations, environmental refugees and loss of food independence. How can sustainable goals not discuss issues related to sea level rise? Why not state which WTO, Doha and Hong Kong provisions are relevant?

G 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss		
15.1	SDG Goals and Targets	Indicators	Positive Development
15.2	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	15.1.1 Forest area as a proportion of total land area 15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	It is 2020 and there has been no progress by these indicators. This set of sub-goals is treated separately from agriculture which often competes for the same land (eg. the Amazon) and water (eg. Australia). Does forest area include plantations? 'Proportion of important sites protected for freshwater biodiversity' does not aim for an increase, let alone maintenance, and these areas are vulnerable to climate change, fire, and so on
15.3	By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	15.2.1 Progress towards sustainable forest management	There has been no global progress toward halting deforestation, and no overall increase in forested areas or restoration. 'Progress in promoting' something is not a tangible indicator, as promotion may not guide better on-ground management and implementation. A 'net gain in global reforestation' would be a measurable indicator, but not 'progress toward management'
15.4	By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	15.3.1 Proportion of land that is degraded over total land area	It is useful to track the change in degraded versus total land area. Sustainability goals should aim for sustainability, however. Offsetting land degradation neutrality is not 'combating' desertification. It is 2020 and desertification, droughts, soil degradation and floods promise to continue if not increase.
15.5	By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development	15.4.1 Coverage by protected areas of important sites for mountain biodiversity 15.4.2 Mountain Green Cover Index	Green coverage of mountains may not be a complete indicator of ecosystem functions. Areas around protected sites may be converted to monocultural agricultural that introduces invasive species. Given the tenor of other sub-goals, "enhancing their capacity to provide benefits" could mean material yield
15.6	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect	15.5.1 Red List Index	It is 2020. It is very costly to bring species back from the edge of extinction (often left to volunteer and research groups). It requires an increase in land and habitats for biodiversity, as well as eco-restoration

	and prevent the extinction of threatened species		activities - not merely a reduction in the degradation of the remnant natural habitats
15.7	Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed	15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	In terms of sustainability, there is more to consider than fair and equitable sharing of the benefits of genetic resources. The term 'as internationally agreed' appears, once again, to refer to existing goals. Sustainability goals should aim higher than merely implementing past and future agreements. What are the criteria or indicators for 'fair and equitable sharing'?
15.8	Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products	15.7.1 Proportion of traded wildlife that was poached or illicitly trafficked	Given COVID-19, and the growing number of endangered and extinct species, why is the wildlife trade itself not being eliminated. Are traded wildlife traced back to their sources? A reduction in poached or illicitly trafficked wildlife is a lame sub-goal when other sub-goals in the SDGs are not obtainable either
15.9	By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species	15.8.1 Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	It is 2020 and the number of feral species are increasing in many places. Assessing the proportion of countries that are adequately resourcing the prevention or control of invasive alien species only means 'introducing measures' but implies that some countries are already successful in controlling this problem
15.a	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	15.9.1 (a) Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets; and (b) integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting	Even in developed nations that purport to integrate biodiversity values into planning, strategies and accounts, they usually only require a partial offsetting of biodiversity losses with each new development. An Aichi Biodiversity target for 2020 is to at least 'halve the rate of loss' of all natural habitats, including forests - not halving the areas that are already lost but - halving the rate of ongoing losses. If the rate of loss is 10 percent per annum, a (compounding) rate of loss of 5 per cent will lead to massive eradication within years.
15.b	Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	15.a.1 (a) Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments	Again, 'financial resources from all sources' would take away resources from the many of the above provisions that also call for allocating more money to more things. As an economics-led plan it should provide some conception of a basic budget within this shopping list

15.c	Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation	15.b.1 (a) Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments	It states that conservation and reforestation is 'included' in management suggesting that sustainable 'use' of biodiversity is the priority. "Revenue generated and finance mobilized from biodiversity-relevant economic instruments biodiversity-relevant economic instruments" needs explanation. There is little or no real evidence of the effectiveness of these economic instruments in achieving actual conservation goals
	Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities	15.c.1 Proportion of traded wildlife that was poached or illicitly trafficked	This is the same indicator as 15.7.1. but the sub-goal includes "increasing the capacity of local communities to pursue sustainability livelihood opportunities". Does this mean harvesting sustainably, wildlife tourism or paying villagers (or tourists) to shoot poachers? 'Enhance global support' is weaker than (15.b) 'mobilize significant resources from all sources and at all levels'
G 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels		
16.1	SDG Goals and Targets	Indicators	Positive Development
16.2	Significantly reduce all forms of violence and related death rates everywhere	16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age 16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause 16.1.3 Proportion of population subjected to (a) physical violence, (b) psychological violence and (c) sexual violence in the previous 12 months 16.1.4 Proportion of population that feel safe walking alone around the area they live	Violence should be reduced everywhere but does this mean investing more in prevention or punishment (old school 'law and order')? These crime statistics are already collected, so will tracking these stats provide new information that is useful to addressing the causes of violence. G16 purports to be about peace and justice but only seems to be about more of the same (crime and social control) and making existing institutions more effective, not systems change
16.3	End abuse, exploitation, trafficking and all forms of violence against and torture of children	16.2.1 Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month 16.2.2 Number of victims of human trafficking per	This was covered above in 8.7 as well. The goals and targets in a sustainability plan should consider means of changing the socio-economic and biophysical conditions that enable various forms of violence against children. There is no hint of what needs to be done or how. There is a huge body of sustainability literature that explores new approaches to social issues and

		100,000 population, by sex, age and form of exploitation 16.2.3 Proportion of young women and men aged 18–29 years who experienced sexual violence by age 18	social transformation. However, these targets, policies and indicators are nested in the dominant paradigm of economic growth and traditional institutions
16.4	Promote the rule of law at the national and international levels and ensure equal access to justice for all	16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms 16.3.2 Unsentenced detainees as a proportion of overall prison population 16.3.3 Proportion of the population who have experienced a dispute in the past two years and who accessed a formal or informal dispute resolution mechanism, by type of mechanism	This is yet another policy that aims for what is supposed to be the status quo, without hinting at what should be changed or how. For example, this goal does not recognize that the victims of violence are still treated differently depending on gender, race, wealth, nationality and other forms of social hierarchy. These groups are less likely to report victimization or be heard if they complain. A sustainability document would suggest principles or processes for dispute resolution that have often been missing from the 'rule of law'
16.5	By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime	16.4.1 Total value of inward and outward illicit financial flows (in current United States dollars) 16.4.2 Proportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments	The 'legal' arms trade also has huge sustainability consequences. A sustainability goal that just calls for implementing existing laws assumes that more of the same will be more sustainable. Does this target and indicator suggest that seizing a portion of illicit goods can fund the ongoing fight against crime sustainably?
16.6	Substantially reduce corruption and bribery in all their forms	16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months 16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months	Again, the reason for the 12 month cut off is not explained. Why is charting trends counted instead of systems reforms? There are many forms of bribes that do not involve direct payment, such as offering excuses for boondoggles. Corruption often comes from the outside of government bureaucracies, through organized crime and/or the corporate sector. In some countries, for example, public officials want to be accepted into corporate circles because they have far more power and prestige than those in government.
16.7	Develop effective, accountable and transparent institutions at all levels	16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)	The "proportion of the population satisfied with their last experience" assumes transparency. If there is little transparency, they could not judge (ignorance is bliss).

		16.6.2 Proportion of population satisfied with their last experience of public services	Also, public services that are contrary to sustainability may be very satisfying to the private stakeholders.
16.8	Ensure responsive, inclusive, participatory and representative decision-making at all levels	16.7.1 Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups 16.7.2 Proportion of population who believe decision making is inclusive and responsive, by sex, age, disability and population group	Will this be achieved by quotas with sunset clauses or by pure volition? Most of the targets and indicators in the SGDs would only serve as a means of rating and ranking different governments. Is this a rating scheme? The second indicator is, again, about customer satisfaction. If everyone believes that decision making is inclusive and responsive, does that mean the decisions and outcomes are also sustainable?
16.9	Broaden and strengthen the participation of developing countries in the institutions of global governance	16.8.1 Proportion of members and voting rights of developing countries in international organizations	This would always be good, but a linkage could be made to sustainability or sustainable development. How is the current inequality of members and voting rights of developing nations affecting sustainability?
16.10	By 2030, provide legal identity for all, including birth registration	16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	It is not clear how legal identity including birth registration (which should be a right) would increase socio-ecological sustainability
16.a	Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months 16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information	This is essential for social sustainability, but it does not mention access to information relevant to environment and development decisions. The ideological allegiances of those doing the killings should be made public. Ecologically-damaging development decisions affect everyone's future (and damages the economy). This appears to want to protect freedom of information only where national governments already protect claim to
16.b	Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime	16.a.1 Existence of independent national human rights institutions in compliance with the Paris Principles	Independent national human rights institutions are important. However, some governments have adopted 'rights of nature' legislation or even included this concept in their constitutions. Since terrorism and crimes against people are mentioned several places above, why not prohibit environmental vandalism and exploitation as a human right that is essential to life?
	Promote and enforce non - discriminatory laws and policies for sustainable development	16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of	This relies on people's subjective views instead of more objective, stationary baselines. How people feel about their rights to a healthy environment depends on

		discrimination prohibited under international human rights law	awareness. Most people 'experience' adverse, irreversible impacts after the damage is done.
G 17	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development (To further develop an open, predictable, rule-based, non-discriminatory trading and economic system)		
	SDG Goals and Targets	Indicators	Positive Development
17.1	Finance		
17.2	Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection	17.1.1 Total government revenue as a proportion of GDP, by source 17.1.2 Proportion of domestic budget funded by domestic taxes	This does not really have anything to do with socio-ecological sustainability. Simply increasing 'domestic resource mobilization' does not mean that the money will be spent in ways that are sustainable or that support sustainability. How are domestic tax revenues relevant anything but economic growth?
17.3	Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA GNI) to developing countries and 0.15 to 0.20 per cent of ODA GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA GNI to least developed countries	17.2.1 Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI)	Although this may be a step towards better North-South 'equity in growth and consumption, it appears to be irrelevant to the implementation of sustainable development policies. It would do nothing to prevent or slow the rate of business-as-usual development. What is to stop the South from developing along the same path of unsustainable construction that the North has followed. While the UN's Brundtland Report adopted a weak conception of sustainability, the SDGs are totally regressive - a return to the pre-Brundtland era. They do not address development (the built environment) or nature (the natural environment). To call for financial growth in terms of GDP or GNI, regardless of what the funds are used for, and totally outside of any sustainability context, is outlandish. Sustainability requires a systems view, as it is a systems design problem.
17.4	Mobilize additional financial resources for developing countries from multiple sources	17.3.1 Foreign direct investment, official development assistance and South-South cooperation as a proportion of	Mobilize resources from multiple sources for what? At the expense of what other aims? All the sub-goals essentially call for more fund raising or expenditures to

		gross national income 17.3.2 Volume of remittances (in United States dollars) as a proportion of total GDP	increase GDP, productivity, development and resource consumption, and the proportion or priorities as not set, so the indicators are meaningless.
17.5	Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress	17.4.1 Debt service as a proportion of exports of goods and services	Attaining long-term 'debt sustainability' is about the financial sustainability of those investing in developing countries. Aid in 'debt financing, debt relief and debt restructuring' says little about the type and quality of development. It may sustain an economic system that runs counter to social and ecological sustainability. It leaves out the other 'legs' of the proverbial pillars of sustainable development: social, cultural, governance, ecology and the circular economy.
	Adopt and implement investment promotion regimes for least developed countries	17.5.1 Number of countries that adopt and implement investment promotion regimes for developing countries, including the least developed countries	What will ensure investment is not directed at exploitative purposes by corrupt officials and corporations or toward business-as-usual planning, design and construction?
17.6	Technology		
17.7	Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	17.6.1 Fixed Internet broadband subscriptions per 100 inhabitants, by speed	While internet subscriptions may assist equal opportunity and North-South equity, this does not indicate how to use technology (or even broadband) for protecting the natural or social life support systems. This set of sub-goals has virtually nothing to do with the design and construction of cities, buildings and infrastructure (the whole built environment) and does not promote any new economic model or mode of development that addresses sustainability. The SDGs mainly use financial indicators (without priorities), and this whole section on global partnerships does not link to sustainability at all, only financial stability.
17.8	Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and	17.7.1 Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies	This traditional goal does not need most of the other goals in this section. However, environmentally sound technologies should include multifunctional passive solar design and retrofits and other natural systems that use less energy, materials and transport. Which is the real goal: to create new markets for the transfer of

	preferential terms, as mutually agreed		products from North to South or to innovate to address climate change, poverty and biodiversity losses?
	Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	17.8.1 Proportion of individuals using the Internet	This goal was for 2017, and the newer version did not change this date. It would be helpful if a column were added with a baseline, so that the targets and indicators were relative to some past or current status. In this case, for example, the proportion of individuals using the Internet to begin with would be helpful, or whatever information was available when the indicator framework was published and/or updated. By now, there must be some idea.
17.9	Capacity building		
	Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation	17.9.1 Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries	Capacity building is always good, but it is unclear what capacity is most needed or valued? Will it be scientific or administrative? 'Effective and targeted' capacity to implement national plans is not indicated by the dollar value spent on financial and technical assistance. Will this capacity-building be in all the 17 headline goals? Are the 17 goals themselves prioritized in some way? Indicators that call for allocating more financial resources should state what past expenditures were
17.10	Trade		
17.11	Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda	17.10.1 Worldwide weighted tariff-average	This section on trade must acknowledge the social and environmental impacts of trade, both positive and negative. Equitable trade rules must be linked to equitable social outcomes and positive environmental outcomes. Trade is not a good in itself. In SDGs the targets and indicators should ensure that trade has positive outcomes, not just advocate free trade, as trade agreements are often counter to sustainability
17.12	Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020	17.11.1 Developing countries' and least developed countries' share of global exports	What is to ensure that these exports are not harmful to the culture, environment or general public? For instance, trade in products from non-threatened species could lead to them becoming endangered. Why are targets not linked to sustainability?

	Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access	17.12.1 Weighted average tariffs faced by developing countries, least developed countries and small island developing States	Does this sub-goal mean that people in developing nations will gain more access to basic needs, more goods, or more conspicuous consumption? Many products are inherently wasteful of resources. Products may be: used for non-productive or anti-social purposes; designed for planned obsolescence, disposability or other forms of waste; not be compostable or biodegradable; require fossil fuels to operate; support a non-sustainable lifestyle such as luxuries with few useful functions; risk the spread of disease and so on. Which tariffs currently support social and ecological sustainability?
Systemic issues			
17.13	<i>Policy and institutional coherence</i>		
17.14	Enhance global macroeconomic stability, including through policy coordination and policy coherence	17.13.1 Macroeconomic Dashboard	Global macroeconomic stability is threatened by environmental destruction such as climate change and pandemics, due to the economic paradigm
17.15	Enhance policy coherence for sustainable development	17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development	Policy incoherence is caused by the lack of integration of ethical, ecological and environmental considerations in economics-led development
	Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development	17.15.1 Extent of use of country-owned results frameworks and planning tools by providers of development cooperation	This could nullify any agreed sustainable development goals. Respecting diversity is important as long as it is a race to the top, not the bottom. So far trade seems to be driven by the lowest common denominator. Is there a baseline rather than a cap on doing good?
17.16	<i>Multi-stakeholder partnerships</i>		
17.17	Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable	17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the Sustainable Development Goals	Does this include established sustainability organizations and their past conceptual and scientific work, or will new groups be formed that, once again, reinvent the concepts that were developed in the past? Will this section address the problems of past multi-stakeholder partnerships that appeared to be collaborative, but were subverted toward the end of the process by power politics, enabling the forces behind

	Development Goals in all countries, in particular developing countries		economic/industrial growth and institutional inertia to claim that they had the endorsement of grassroots organizations advocating sustainability
	Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	17.17.1 Amount in United States dollars committed to public-private partnerships for infrastructure	"Building on the experience and resourcing strategies" does not provide assurance that learnings from past failures in public-private partnerships for infrastructure will be analysed and avoided. Only sustainable or green infrastructure should be included in SDGs
17.18	<i>Data, monitoring and accountability</i>		
17.19	By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts	17.18.1 Statistical capacity indicator for Sustainable Development Goal monitoring 17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics 17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding	Data concerning different categories of people is important, but if those economic gains (however well distributed) are at the expense of local resources and environments then they are not relevant. Democracy in consumption does not create intergenerational equity. The exclusion of environmental gains and losses from economic accounting is business-as-usual (killing the goose that lays the golden egg). There is no indication from the SDG targets and indicators that the data will focus on sustainability, instead of collecting statistical information to facilitate commerce. Since statistics were not created with sustainability in mind, new kinds of statistics are needed
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