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AL-FARABI KAZAKH
NATIONAL UNIVERSITY

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THE SUSTAINABLE DEVELOPMENT GOALS FOR THE PLANET FUTURE

There are considered modern environmental, economic and social problems of the planet Earth for which solution the concept of "sustainable development" has been developed. Evolution of views of "sustainable development" is presented in details. It is shown that the previous Millennium development goals have allowed to save millions of lives and to improve quality of life of billions, but have kept unequal achievements and defects in many spheres. The Agenda of sustainable development until 2030 unites the global purposes in area of development and environmental sustainability in one concept. The main values of 2030 Agenda are listed also 17 sustainable development goals (SDG) which became result of joint work of the international organizations, such as UN, UNESCO and others are formulated. It is shown that human behaviour has led to environmental crises. This paper reviews three of the most common explanations: overpopulation, modern lifestyle and individual behaviour. During 1950-2015 the population of Earth has increased three times that is a serious demographic problem. The correct policy creation of human behaviour is necessary. For example, consumption of resources can be determined by the indicator of an ecological footprint based on calculation of the used land and water resources. Quality education for sustainable development is important. Meeting the SDGs means that all people in low and high income countries have to contribute in their own ways to ensure environmental sustainability for all and for prosperity of the planet future.

Key words: sustainable development goals, global environmental challenges, human behaviour, ecological footprint, planet future.

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Ғаламшардың болашағы үшін тұрақты дамудың мақсаттары

«Тұрақты даму» концепциясы әзірленуіне негізделген Жер ғаламшарының заманауи экологиялық, экономикалық және әлеуметтік мәселелері қарастырылған. «Тұрақты даму» концепциясына көзқарастардың жетілдіруі нақты көрсетілген. Мыңжылдықты дамудың мақсаттары қоршаған ортаның миллиард тірі нысандарының түрін сақтап қалуға, адамдардың өмір сүру сапасын жақсартуға мүмкіндік бергені туралы, дегенмен барлық салада тепе-теңдік орын алмады және бұл бағытта әлде де жұмыс жүргізу қажеті анықталды. 2030 жылға дейінгі тұрақты дамудың аясындағы күн тәртібі экономикалық тұрғыда даму және табиғатты қорғау саласында жаһандық мақсаттарды бір концепцияда біріктіреді. Осы күн тәртібінің негізгі құндылықтары қарастырылады және БҰҰ, ЮНЕСКО және т.с.с. халықаралық ұйымдардың ұжымдық жұмыстарының нәтижесі болған тұрақты дамудың 17 мақсаты тұжырымдалды. Адамның қызметі экологиялық дағдарысқа әкелгені жөнінде көрсетілген. Берілген мақалада кең таралған үш

түсінік айқындалған: халық тығыздығы, қазіргі өмір салты және жеке тұлғалық тәлім-тәртібі. 1950-2015 жылдар арасында халық саны үш есе артты, қазіргі уақытта бұл үлкен демографиялық мәселеге айналды. Адам қызметінің дұрыс саясатын орнату және оны дағдыландыру қажеттілігі туындады. Мысалы, табиғат қорын пайдалануы экологиялық із көрсеткішімен анықтауға болады. Бұл көрсеткіш жер және су ресурстарын пайдалану мөлшерін ескере отырып, есептеледі. Тұрақты даму мақсатында сапалы білім берудің маңыздылығы айқындалған. Тұрақты дамудың мақсаттарын орындау дегеніміз – жоғары және төмен табыстағы мемлекеттердің тұрғындары ғаламшардың игі болашағының тұрақтылығын қамтамасыз ету үшін өз үлестерін қосу керек.

Түйін сөздер: тұрақты дамудың мақсаттары, жаһандық экологиялық мәселелер, адам қызметі, экологиялық із, ғаламшардың болашағы.

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Цели устойчивого развития для будущего планеты

В статье рассматриваются современные экологические, экономические и социальные проблемы планеты Земля, для решения которых была разработана концепция «устойчивого развития». Детально представлена эволюция взглядов на «устойчивое развитие». Показано, что предшествующие Цели развития тысячелетия позволили спасти миллионы жизней и улучшить качество жизни миллиардов, но сохранили неравные достижения и недоработки во многих сферах. Повестка дня в области устойчивого развития на период до 2030 года объединяет глобальные цели в области развития и охраны природы в одной концепции. Перечислены основные ценности этой повестки и сформулированы 17 целей устойчивого развития (ЦУР), которые стали результатом коллективной работы международных организаций, таких как ООН, ЮНЕСКО и других. Показано, что поведение человека привело к экологическому кризису. Данная статья рассматривает три из наиболее распространенных объяснений: перенаселенность, современный образ жизни и индивидуальное поведение. В период 1950–2015 гг. население Земли увеличилось в три раза, что является серьезной демографической проблемой. Необходима выработка правильной политики поведения человека. Например, потребление ресурсов может быть определено показателем экологического следа, основанным на расчете использованных земельных и водных ресурсов. Важно качественное образование в целях устойчивого развития. Выполнение ЦУР означает, что все люди в странах как с низким, так и с высоким доходом должны внести свой посильный вклад в обеспечение устойчивости для всех во благо будущего планеты.

Ключевые слова: цели устойчивого развития, глобальные экологические проблемы, поведение человека, экологический след, будущее планеты.

What is sustainable development?

The planet Earth is in a dire state. Natural resources have been overexploited. A significant loss of biodiversity is occurring while a massive rise of carbon levels is leading to climate change and associated extreme weather. Toxic substances are increasingly found in air, water, soil, and flora and fauna. The planet faces desertification, drought and land degradation. Human living conditions have not fared much better. Even though the number of people living in extreme poverty has declined by over 1 billion (United Nations, 2015a), disparities between rich and poor continue to rise. Oxfam recently reported that the world's richest 62 people possess as much wealth as the poorest 3-6 billion (Hardoon et al., 2016). Too many people are trapped in poverty, and lack clean air and drinking water as well as adequate food and nutrition. Many families are forcibly displaced or on the run due to protracted conflict. Wide disparities persist in access to education of good quality. It is out of these concerns that the concept of sustainable development was born.

Sustainable development was advanced in the 1960s and 1970s as a concept linking observed interactions between humans and the environment, as documented in literature such as *Silent Spring* (Carson, 1962), *The Population Bomb* (Ehrlich, 1968) and *The Limits to Growth* (Meadows et al., 1972). In 1972, the United Nations (UN) Conference on the Human Environment in Stockholm marked the beginning of a global conversation on sustainable governance, although the term was still in the making.

Experts convened a global symposium in Mexico two years later and signed the 1974 Cocoyoc Declaration, which advocated harmonizing environment and development strategies through 'eco-development' (UNEP and UNCTAD, 1974).

The first use of the term 'sustainable development' in a major public document was the 1980 World Conservation Strategy, which confirmed that conservation of living resources was essential to sustainable development (IUCN et al., 1980). At the 1986 Conference on Conservation and Development in Ottawa, sustainable development was defined as:

Integration of conservation and development,

Satisfaction of basic human needs,

Achievement of equity and social justice,

Provision of social self-determination and cultural diversity,

Maintenance of ecological integrity (Lele, 1991).

The most common notion of sustainable development was popularized in the 1987 Brundtland Report "Our Common Future", which raised questions about the consequences of traditional economic growth in terms of environmental degradation and poverty (United Nations, 1987). The Brundtland Report referred to "development which meets the needs of the present without compromising the ability of future generations to meet their own needs". This report listed critical objectives for sustainable development: changing the quality of economic growth; meeting essential needs for jobs, food, energy, water and sanitation; ensuring a sustainable population level; conserving and enhancing natural resources; reorienting technology and managing risk; linking environmental and economic concerns in decision-making; and reorienting international economic relations to make development more participatory (Lele, 1991).

Global understanding of sustainable development has since evolved into a framework developed over decades by an international community of member state governments, UN agencies, multilateral and bilateral development partners, civil society organizations, researchers and scientists. It resulted in the 2030 Agenda for Sustainable Development, a value-based framework for action that reflects core beliefs and principles (Sachs, 2015).

Several key terms and values are essential to understanding the post-2015 Agenda:

People, Planet and Prosperity: The '3Ps' are interdependent and mutually reinforcing pillars that represent the social, environmental and economic aspects of progress for all life forms on Earth.

Good governance: This dimension supports the 3Ps through responsible leadership and active engagement in both the public and private sectors. Good governance ensures peaceful societies and upholds human rights for the good of the planet.

Links and connections: Sustainable development works as an organizing principle because it recognizes that complex natural and social systems are linked and interconnected. Changes that occur in one system may affect others in ways that result in something more than the sum of the parts.

Intergenerational equity and justice: Fairness is critical to a world fit for future generations, where children can grow up to be healthy, well nourished, resilient, well educated, culturally sensitive and protected from violence and neglect, and with access to safe, unpolluted ecosystems. Equity and justice are also required for diverse groups in the current generation.

There is no single definition of sustainable development. The different perspectives of sustainable develop include viewing it as a model to improve current systems (endorsed by those focusing on viable economic growth), a call for major reforms (supported by those who advocate for a green economy and technological innovation) and an imperative for a larger transformation in power structures and embedded values of society (supported by transition movements).

Some ecologists, such as deep ecologists, believe day human development focuses too much on people and ignores the plant, animal and spiritual parts of this world (Leonard and Barry, 2009). They believe humans must learn to be less self-interested and place the needs of other species alongside their own. Transformation advocates say societies should go back to ways of living that are locally sustainable – consuming and wasting less, limiting needs to locally available resources, treating nature with respect, and abandoning polluting technology that has become an integral part of modern society. Culture advocates believe sustainable living happen only if communities truly embrace it as part daily culture (Hawkes, 2001) so that it affects decisions about what to eat, how to commute to work and spend leisure time.

The South American "buen vivir" movement rejects development as materialistic and selfish, implying that living sustainably means finding alternative; development (Gudynas, 2011). The "buen vivir" belief system comes directly from traditional values of indigenous people, and posits that collective needs are more important than those of the individual. In Ecuador, this concept is called

"sumac kawsay", the Quechua term for fullness of life in a community. It involves learning live within boundaries, finding ways to reduce us do more with less, and exploring non-material values. Ecuador and the Plurinational State of Bolivia have incorporated "buen vivir" into their constitutions.

Most definitions of sustainable development challenge the status quo, believing human development lacks meaning without a he planet. This view requires people, communities and nations to consider basic values of daily living and change the way they think. Understanding one's own values, the values of one's community and society, and those of others around the world is a central part of educating for a sustainable future. This means education systems need continuously evolve and change in order to identify what practices work best within a given context and how they need to change over time. Indeed, for many of its advocates in education, sustainable development is best understood as a journey, rather than a destination.

The 2030 Agenda unites development and environmental sustainability.

Since the Brundtland Report, three international meetings have played an instrumental role along the path to the 2030 Agenda: the Rio (1992), Johannesburg (2002) and Rio+20 (2012) Earth summits.

The 1992 UN Conference on Environment and Development, also known as the Earth Summit, established Agenda 21, an action plan intended for governments and other major groups. Participants at the conference in Rio de Janeiro hoped the plan's implementation would result in the widespread changes needed to integrate environmental sustainability and development. Agenda 21 included a special chapter (Chapter 36) on the need for education, public awareness- raising and training to reorient society towards sustainable development.

The 2002 World Summit on Sustainable Development (WS5D)in Johannesburg pledged to strengthen the mutually reinforcing pillars of sustainable development at the local, national, regional and global levels with the goal to 'banish underdevelopment forever' (United Nations, 2002). The WSSD agenda included fighting severe threats to sustainable development, including chronic hunger, malnutrition, terrorism, corruption, xenophobia and endemic, communicable and chronic diseases. Special emphasis was also placed on women's empowerment, emancipation and gender equality.

The 2012 UN Conference on Sustainable Development in Rio de Janeiro, commonly referred to as Rio +20, again evoked the three pillars – the social, environmental and economic dimensions of sustainability – as guides for international development (United Nations, 2013). Importantly, Rio +20 acknowledged a lack of progress in achieving sustainable development, especially in integrating the three pillars. Therefore, Rio +20 emphasized the role of good governance and integrated planning in achieving sustainable development.

Despite these global meetings, over the past two decades the Earth's biosphere has continued to deteriorate, poverty has remained widespread and social inequality has increased. These harmful trends accelerated despite efforts to meet the Millennium Development Goals (MDGs), the 2000-2015 global development and anti-poverty agenda. After Rio +20, an inclusive intergovernmental process began to formulate the Sustainable Development Goals (SDGs) to succeed the MDGs, which were approaching their target date and had been subject to criticism.

The Millennium Development Goals failed to ensure environmental sustainability. The eight MDGs – to eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; and develop global partnerships – saved millions of lives and helped improve quality of life for billions. However, the final MDG review acknowledged uneven achievements and shortfalls in many areas.

Three critical factors hampered success. First, public agencies and private-sector firms were not held accountable for the environmental damage that economic growth causes. Rather, the damage was justified as the price of economic development, and the cost of damage was absorbed by society, not by polluters. Second, the cost to future generations of environmental damage during development was not valuated, as it was commonly believed that countries could grow now and clean up later. Finally, the MDGs focused on developing nations, assigning rich countries the role of financial donors. By artificially separating rich and poor countries, the MDGs failed to recognize how all societies are interconnected, both reliant on and affected by changes to socioeconomic and natural systems on Earth.

However, the experience of the MDGs taught global policy-makers to better recognize the differences between countries at the start of processes, and the need for context-specific goals,

priority-setting and policy coherence between the global, regional, national and subnational levels (Zusman, 2015).

At the 70th Session of the UN General Assembly in September 2015, member states adopted a new global development Agenda " Transforming Our World: The 2030 Agenda for Sustainable Development". At its heart are 17 SDGs (Figure1). The SDGs establish development priorities to 2030 and succeed the MDGs.

Figure1 – Illustration for 17 Sustainable development golds (SDGs)

A concurrent process, involving discussions of the Open Working Group (OWG), was mandated in the outcome document of the Rio+20 conference in Dune 2012, which affirmed the role and authority of the UN General Assembly to lead the SDG process. In January 2013, member states established the intergovernmental OWG, with 70 member states sharing its 30 seats, to propose SDGs. Recommendations on the vision and shape of the SDG agenda were included in the report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, released in mid-2013. After 13 sessions, the OWG produced a document in July 2014 that put forward 17 goals with 169 targets (Table 1).

A conclusive body of evidence built since the 1972 UN Conference on the Human Environment shows that the actions and habits of a single species, *Homo sapiens,* leading to the planet's unprecedented dysfunction. An increasing part of the world's population lives beyond he ecological limits set by earth's finite natural resources and support systems.

Since human behaviour is clearly the problem, people are responsible for solutions to these planetary challenges. The 2030 Agenda for Sustainable Development emphasizes environmental sustainability issues, the need to transform consumption and production to restore balance to life on land and in water, and the need for urgent action on climate change. Furthermore, environmental sustainability is clearly intertwined with social and economic sustainability, as the challenges surrounding equitable and sustainable use of natural resources affect people's ability to lead peaceful, stable, prosperous and healthy lives.

The relationship between human development and environmental impact is not straightforward. On the one hand, people living in wealthy countries with higher levels of education are more likely to lead lifestyles that leave a harmful footprint on global ecosystems – from increased food waste to higher levels of carbon dioxide from car and airplane use.

On the other hand, increases in environmental education and ecological literacy help people change their personal attitudes and behaviour in everyday ways such as recycling, reducing litter and conserving energy, as well as on issues including water sanitation and public health. This means some, if not most, kinds of education are effective tools in the fight towards environmental and planetary health.

Table 1 – The Sustainable Development Goals

Number of goals	Goals
1	End poverty in all its forms everywhere
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3	Ensure healthy lives and promote well-being for all at all ages
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	Achieve gender equality and empower all women and girls
6	Ensure availability and sustainable management of water and sanitation for all
7	Ensure access to affordable, reliable, sustainable and modern energy for all
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10	Reduce inequality within and among countries
11	Make cities and human settlements inclusive, safe, resilient and sustainable
12	Ensure sustainable consumption and production patterns
13	Take urgent action to combat climate change and its impacts
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
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
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
17	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

This chapter outlines pressing environmental challenges and the kinds of policies proposed to move towards environmental sustainability. It explores various ways of understanding responsibility for the human behaviour that has contributed to the looming crisis, then turns to ways in which education and learning can contribute to solutions. Finally, it explores how integrated approaches to lifelong learning can help address climate change.

Global environmental challenges are pressing. Many climate scientists believe Earth has entered a new geological era, the Anthropocene, where human activities are undermining the planet's capacity to regulate itself. Until the Industrial Revolution in the late 1700s, global environmental changes were not strongly linked to human actions. They were essentially the product of slow-occurring natural causes, such as variations in the sun's energy or volcanic eruptions. Since the start of modern manufacturing, while humans have benefited from increased trade, economic growth and longer, healthier lives, the natural world has suffered environmental deterioration (UNEP, 2012).

The scale and pace of biodiversity loss, land degradation, stratospheric ozone depletion and climate change are attributable to human activities. Humans are responsible for the massive release of carbon dioxide and other heat-trapping gases into the atmosphere. Human behaviour has caused irreversible damage to some plant and animal species. The variety of vertebrates (mammals, birds, reptiles, amphibians and fish) has declined by 52% since 1970 (McLellan et al., 2014). The largest extinction is happening among freshwater species, mostly due to habitat loss and extensive hunting and fishing. Experts developed the concept of planetary boundaries as a useful way to describe and measure the environmental limits within which humanity and other living organisms on the planet

can safely operate (Rockstrom et al., 2009). Nine planetary boundaries are monitored via indicators for climate change, biodiversity loss, nitrogen and phosphorus pollution, stratospheric ozone depletion, ocean acidification, global freshwater consumption, change in agricultural land use, air pollution and chemical pollution. Six of the indicators have increased significantly since the pre-industrial era; five have remained at or entered high-risk zones. Since all planetary boundaries are closely linked, these trends indicate a threat to the earth's land, water and atmosphere (Steffen et al., 2015).

Human behaviour has led to environmental crises.

While the general consensus is that humans are responsible for global environmental crises, views differ as to the human-related factors most responsible. Experts have identified interrelated ways in which people are pushing planetary boundaries, each associated with a distinct set of policy options and solutions. This paper reviews three of the most common explanations: overpopulation, modern lifestyles and individual behaviour.

The demographic problem this idea proposes that there are simply too many people on the planet. More people use more natural resources, pushing planetary boundaries into risk zones. The global population tripled between 1950 and 2015 (United Nations, 2015), mainly due to improvement in public health, and is expected to grow by another billion to 8.5 billion in 2030.

The population is not evenly distributed: Nearly three-fourths of the increase will take place in low and lower middle-income countries, especially in sub-Saharan Africa and Southern Asia (Table 2).

Not only are there more people, but they are also on the move. Two kinds of migration put pressure on the relationship between population and resources: internal migration from rural to urban areas and international migration from poor to wealthy nations. By 2050, two out of three people on the planet will live in urban areas; a large portion of future urbanization will be caused by rural–urban migration (Buhaug and Urdal, 2013). It will take place mostly in countries and regions where urbanization may cause serious environmental problems in cities including water scarcity and contamination, land shortage, polluted air and insufficient sanitation. Meanwhile, high income countries received an average of 4.1 million net migrants annually from poorer countries between 2000 and 2015 (United Nations, 2015), a trend expected to continue. People living in urban areas and wealthier countries consume more resources per person (UNEP, 2012), so these trends will put more stress on environmental systems.

The modern lifestyles problem based on this approach. It focuses on the fact that people in urban areas and wealthier countries choose lifestyles entailing less environment-friendly consumption patterns. Resource consumption can be measured through the ecological footprint indicator, a calculation of a country's use of land and water resources compared to the stock of those resources (Ewing et al., 2010).

In 2012, most high income countries had an unsustainable ecological footprint, except those with very low population density . Most middle income countries of Eastern and South-eastern Asia, Northern Africa and Western Asia, and Southern Asia also had a deficit, particularly China. In sub-Saharan Africa, countries with large populations or middle income levels had a deficit. The only region where most countries lived within their environmental means was Latin America, owing to its lower population density and large biocapacity.

Table 2 – Total population and percentage change, 2000 to 2030 (projected)

	Total population (millions)			Change 2000–2015	Change 2015–2030
World	2000	2015	2030	%	%
	6 127	7 349	8 501	20	16
Low income	426	639	924	50	45
Lower middle income	2 305	2 916	3 532	27	21
Upper middle income	2 113	2 567	2 567	13	7
High income	1 254	1 373	1 447	10	5

Eastern and South-eastern Asia	2 001	2 222	2 352	11	6
China	1 270	1 376	1 416	8	3
Indonesia	212	258	295	22	15
Southern Asia	1 452	1 823	2 147	26	18
India	1 053	1 311	1 528	24	17
Pakistan	138	189	245	37	30
Bangladesh	131	161	186	23	16
Europe and Northern America	1 041	1 097	1 131	5	3
United States	283	322	356	14	11
Russian Federation	146	143	139	-2	-3
Sub-Saharan Africa	641	961	1 306	50	36
Nigeria	123	182	263	48	44
Latin America and the Caribbean	522	629	716	21	14
Brazil	176	208	229	18	10
Mexico	103	127	148	24	17
Northern Africa and Western Asia	340	463	584	36	26
Caucasus and Central Asia	71	84	96	18	15
Pacific	30	38	46	27	21

*Notes: Data for 2030 are projections based on a median prediction interval. Regions and countries are listed by descending order of population in 2015. The countries listed are the ten with the largest populations in 2015. Source: United Nations (2015).

With some exceptions, available natural resources per capita declined rapidly over 2000–2015, so that even countries with natural reserves in 2012 are expected to start running a deficit during 2015–2030 (Ewing et al., 2010; Global Footprint Network, 2016). There is a clear relationship between modern lifestyles and resource consumption. Countries that perform better on the Human Development Index, measured in terms of education, living standards and health, are much likelier to have a much larger ecological footprint.

The countries with the largest ecological footprints are mostly in Europe and Northern America. Countries that have experienced rapid increases in education, health and living standards, including the Republic of Korea and Singapore, have seen their ecological footprint nearly double as domestic consumption has expanded. In contrast, countries with low levels of human development, mostly in sub-Saharan Africa, have smaller ecological footprints. For instance, the ecological footprints of Eritrea and Timor-Leste are less than 5% the size of the largest footprints.

Countries struggle to find balance between human development and sustainable practices. Some, including Cuba, Georgia, the Republic of Moldova and Sri Lanka, have begun to find it, managing to keep production and consumption within sustainable bounds Some nations have raised the quality of human development while maintaining a low ecological footprint. . Their citizens have relatively good health prospects, with life expectancy between 68 and 79 years. People go to school for 10 to 12 years, well above the global average of 8 years. Yet, their per capita income is less than the global average, from US$5,200 a year in the Republic of Moldova to US$9,780 in Sri Lanka (UNDP, 2015y).

It should be noted that the condition of a country's local environment is not taken into account in comparisons of human development and ecological footprints. Resources are not distributed evenly among countries or even among regions

within countries. As a result, it may be easier for some countries, such as Colombia and Finland, to stay within the limits of their available resources than for others, such as Mongolia and Sudan.

The individual behaviour problem.

A third explanation focuses on individuals as both the source of environmental problems and their solution. Yet, there is a mismatch between the scale of environmental problems, usually measured globally, and the scale of solutions, generally discussed at the individual or community level. While the impact of human behaviour on the environment can be seen on a large scale, it is necessary to analyse the individual level to see how this impact can be reversed through changes in personal behaviour. More careful analysis at the individual level can help identify factors that encourage or discourage particular types of behaviour.

Proponents of this approach believe large-scale change happens by targeting and influencing individual behaviour – getting individuals to buy fuel-efficient cars, insulate their homes and the like (Swim et al., 2011). Often, individual actions are interdependent. Adopting one type of environment-friendly behaviour can prompt adoption of others or deter negative behaviour, though it can also increase environmentally harmful behaviour (e.g. switching to hybrid cars may encourage people to drive more, offsetting emission reductions). Individual actions can also reflect social norms and cultural values. For example, in a European programme to increase the use of carpool lanes, those who chose not to carpool often said they valued flexibility over reduced costs or emissions per person (van Vugt et al., 1996).

Because individual actions are interdependent and because they reflect social context, it is important to not only encourage behaviour change, but also provide people with the full set of knowledge, skills and attitudes they need to make comprehensive changes.

Different problems imply different policy solutions.

The fact that experts emphasize different problems and come from varying perspectives affects their views on the solutions needed to resolve environmental crises. Some believe technological innovations, such as renewable energy sources, sustainable infrastructure and cleaner production practices, are the answer. Others believe that since Western development trajectories have often caused environmental degradation, lower income countries need to find ways to avoid such paths while still improving quality of life. Those who believe population growth is the major driver of environmental challenges focus on ways to reduce fertility in poor countries, especially in sub-Saharan Africa. There has also been a strong focus on making the problem an individual one, arguing that societies' success in responding to environmental challenges is based on how individuals act, separately and collectively. Proponents of this view believe that when individuals gain more knowledge and when behaviour change is in their self-interest, they start using their power as consumers and voters to support behaviour compatible with sustainable outcomes (Tietenberg and Lewis, 2012). While differing perspectives on the problems lead to a range of proposed solutions, meeting the Sustainable Development Goals (SDGs) requires recognizing the need for cooperation and solidarity, despite contextual and ideological differences. All people in low and high income countries have to contribute in their own ways to ensure environmental sustainability for all. Changing the population pressure faced by the world requires significant emphasis on improving life chances and reducing inequality between and within countries. Changing how economies function, whether through technological innovation or using local solutions, requires commitment at the national level, with global and local actors also doing their share. The most important task is to recognize that revolutionary changes in lifestyle, not just incremental adjustments, are required (Senge et al., 2008).

As a conclusion, sustainable development is an organizing principle for global development that supports the well-being of both people and the planet. Since its emergence, the concept and term have expanded to bridge gaps among environmental, economic and social concerns, attempting to integrate environmental protection and ecological integrity, economic viability, and social and human development. Intergenerational equity, balancing the needs of present and future generations, is also a key component.

The 2030 Agenda for Sustainable Development unites global development and environmental goals in one framework. It is the result of decades of collective progress and failure and the articulation of future challenges.

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