



LEAVES, A Newsletter of the INTERNATIONAL ENVIRONMENT FORUM
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From the Editor, Request for information for upcoming newsletters

This newsletter is an opportunity for IEF members to share their experiences, activities, and initiatives that are taking place at the community level on environment, climate change, and sustainability. All members are welcome to contribute information about related activities, upcoming conferences, news from like-minded organizations, recommended websites, book reviews, etc. Please send information to newsletter@ief.org

Please share the Leaves newsletter and IEF membership information with family, friends, and associates and encourage interested persons to consider becoming a member of the IEF.

Religion and science are the two wings upon which man's intelligence can soar into the heights, with which the human soul can progress. It is not possible to fly with one wing alone! Should a man try to fly with the wing of religion alone he would quickly fall into the quagmire of superstition, whilst on the other hand, with the wing of science alone he would also make no progress, but fall into the despairing slough of materialism.

From the Baha'i Writings



IEF MEMBERS - CALL FOR ACTION !

Dear IEF Members,

We respectfully request your attention to some key issues and encourage your active participation, namely:

- **IEF CONTRIBUTION TO UN75** The United Nations is celebrating its 75th anniversary in 2020 by reflecting on its future. The first article below explains different options on how IEF members can participate in this process. Please note that this is time sensitive and important.
 - **ENDORISING OUR PROPOSALS FOR UN REFORM** The second article below provides information on how you can personally endorse two proposals for TogetherFirst.
 - **PLAN TO PARTICIPATE IN THE IEF/ebbf CONFERENCE** The IEF/ebbf Conference is scheduled to be held in Lisbon 14-17 May on "Rethinking Success: a way to save the planet and ourselves". For details about the conference, see the February issue of our newsletter LEAVES. Up-dates about online participation for this conference and alternative plans if it has to be cancelled will be presented in the April issue of the IEF newsletter.
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IEF CONTRIBUTION TO UN75

The United Nations is celebrating its 75th anniversary in 2020 by reflecting on its future, and everyone is invited to contribute. The following is a brief description of many of the ways IEF and IEF members can participate in this process. As you will see, we are already engaged in various ways.

The UN is holding the “world’s biggest conversation” on “the world we want, the UN we need”. There are many opportunities to feed into this process including:

- By making a short social media video talking about the “three things that will change the world” and posting them on the #UN75 hashtag
- By filling in this short survey <https://un75.online/>
- By holding your own meeting and conversation <https://www.un.org/en/un75/join-conversation>

To mark its 75th anniversary in 2020, the United Nations is igniting a people’s debate, UN75. Launched by UN Secretary-General António Guterres, it promises to be the largest and furthest-reaching global conversation ever on building the future we want.

In a world of dramatic changes and complex challenges, from the climate crisis to population shifts to the unknown course of technology, we need collective action more than ever before. Through UN75, the United Nations will encourage people to put their heads together to define how enhanced international cooperation can help realize a better world by 2045, the UN’s 100th birthday.

At this pivotal moment in history, UN75 asks three big questions:

- What kind of future do we want to create?
- Are we on track?
- What action is needed to bridge the gap?

The IEF has been participating in international discourses on important issues of global concern, especially concerning the environment and sustainability, since its founding over 20 years ago. Many of our members have long experience at the international level, including in intergovernmental organizations. We thus have important perspectives to share.

We participated in a similar wide consultation preparing for the Rio+20 UN Conference on Sustainable Development in 2012, and our contributions had an impact. This is our chance to contribute again. We are therefore launching our own consultation, and shall contribute the results to the United Nations as part of UN75. **Add your contributions** in the comments below [the article on the website](#) after signing in, or contribute to the Google Doc on this topic: <https://docs.google.com/document/d/1DhP2zDvR-QDhFoLxantdNH5p4EI7F3hgTLY....>

Please, post your contribution by 27 March. The IEF will then consolidate all contributions and send them to UN75 which gave a deadline of only a few days after that.

ENDORSE OUR PROPOSALS FOR UN REFORM

Together First is an association of civil society organizations including IEF that is coordinating inputs to the United Nations consultation on UN reform in its 75th year. Many organizations have submitted proposals to Together First for consideration, and the most popular will be incorporated into its submission to the UN. These have now been published on line, and the public is being invited to endorse those that they find most important. Two proposals are of special interest to IEF:

Governance, Science and the Climate Crisis

<https://together1st.org/proposals/118>

submitted by the International Environment Forum

Global Governance and the Emergence of Global Institutions for the 21st Century

<https://together1st.org/proposals/119>

submitted by the Global Governance Forum
in which IEF members are major partners

We invite you to endorse these proposals if you agree (there is an Endorse button to the left) and encourage all your friends and contacts to do the same.

Unity: Indicator of True Success

Arthur Lyon Dahl, International Environment Forum

Paper prepared for the ebbf/IEF International Conference

Rethinking Success: a Way to Save the Planet and Ourselves

Lisbon, Portugal, 14-17 May 2020

<http://ebbf.org/event/ebbf-30th-international-annual-learning-event-li...>

Success has been set, particularly in our dominant materialistic culture, as a favourable outcome, the ultimate goal to aim for. Who is the richest, the fastest, the most powerful, the most liked, with the most followers? It becomes a principle instrument of marketing, selling objects that signify success. In business, success is being the largest or richest company, with the highest market value, the most desired products, or rising to the top of the management hierarchy. Yet this view of success has ethical implications that are rarely discussed, and consequences that are threatening our future. Rethinking success has become a moral imperative.

Success for whom?

A good first question as we rethink success is: success for whom? Everything depends on the perspective. In what framework do we define success or what would be successful? Success for one might be failure for someone else. In our Western individualistic society, the first perspective is usually me, myself and I, individual success or the success of the individual company or nation winning out over others, a domination kind of success. In a zero sum game, success for one means someone else is losing. In this case, the set of values within which the question is asked is usually focused on some part of the whole, only a fragment of the whole, and the state of the whole is irrelevant. The assumption is that there is no relationship between individual success and responsibility within any larger system.

Complex systems science sheds a different light on this question, discussed for example at a conference I attended in Stockholm last December (<https://iefworld.org/node/1016>). The premise of the meeting was that the world is heading for catastrophe and we are going to experience collapse, and then asked how can complex systems science help us to navigate through the challenges ahead? From this perspective the framework is the success of the whole system, including everything within it.

An example of this problem is the 2008 financial crisis. Economists and investment managers had found very effective ways of measuring the risk of each financial instrument or derivative product that they were investing in, but nobody thought about the behaviour of the overall banking system. When the knock-on effects of weaknesses in one place started, the whole financial sector collapsed because nobody had looked at the requirements for success of the whole system. Each one was trying to maximize their own success in specific areas and not acknowledging that they were part of a larger whole.

Another example came from the climate change conference COP25 in Madrid in December 2019, where many countries were defending their self-interest, which made it very difficult to come up with a solution satisfactory to the whole in a context where decisions are taken by consensus. Too few there were looking at the common global interest. Governments are always having to balance what they think might pass at home, what will be politically possible or not possible, or answering to the vested interests of influential lobbies. They are measuring success in those narrower terms of self-interest, and ignoring what it means in consequences for the whole to bring on a climate catastrophe through the cumulative impact of many selfish actions.

So when we look at the issue of rethinking success, what good is success for an individual if the result is everybody else dying off, and as a consequence, the individual too eventually dying? In ecology we have the concept of overshoot and collapse. Flour beetles are a good example as they very successfully eat more and more flour and reproduce more and more, until suddenly, when they have eaten up all the flour, they all starve to death. Short-term success led to long term failure. Very often what is wrong with definitions of success today is that they are always partial and are not asking about the behaviour of the overall system on which everyone depends.

Success when? The time-frame is another dimension that we often get wrong, favouring the present over any possible future, just as we generally prefer ourselves over others. In businesses, it is the daily stock price, or the quarterly or annual financial report that measures how you are doing relative to the previous quarter or year. This is a very very short perspective. You wonder how often do people think about the future of the company? Look at past market leaders such as Westinghouse, Kodak or Pan Am. Because they didn't innovate, perhaps they were poorly managed, but most importantly they were not planning long enough into the future. They were too comfortable in their present dominant position. Suddenly they were left behind when it became too late to take any corrective action, and they went extinct like the dinosaurs.

We really do need to choose the appropriate time-frame to determine whether or not we are successful. Success is not something you achieve and then have it forever after. It is a dynamic question of balance: how long have you kept your balance and how long have you continued to progress?

If you look at the Baha'i perspective, the time-frame is a dispensation of a thousand years, and a cycle of fulfilment over 500,000 years. So if we were to look at sustainability in that time context, we would really be laying the foundation for an ever-advancing civilization. We need to think of success that at least stretches beyond the extreme short term that is the common framework that most people use today, and considers future generations.

Systems success

Within systems science we look at the complex interactions and relationships of all the parts of the system and seek how to achieve some dynamic balance among all of them. Systems have emergent properties that appear beyond what you might predict looking at any individual part of the system. They can evolve to achieve multiple levels of complexity and efficiency within nested sub-systems. The rules of interaction are important. Competition can lead to domination and instability, winners and losers, while cooperation and reciprocity facilitate higher levels of interaction, integration and efficiency, with everyone winning.

This approach can be applied in many contexts. For example, the Bahá'í Faith offers a systems approach to religion through its explanation of progressive revelation. Its concept of unity in diversity is all about the world as one country and all humanity its citizens, emphasizing cooperation and reciprocity, clear systems characteristics, along with solidarity, with each individual being a trust of the whole. All of these are systems ways of looking at all of humanity and how it fits into the natural world. In spite our technological prowess, we are still totally dependent on the good functioning of the biosphere, as the natural disasters resulting from the climate crisis remind us only too often. Our inner and outer environments interact both for each of us as individuals and as part of families and communities.

Unity as an indicator

Unity means forming a complex whole, the state of being one, and could therefore be seen as the ultimate goal or indicator of success in any complex system, describing the highest levels of integration. At the human level, our cells are united in tissues making up organs performing functions in a unified system we call life. As social organisms, we are born and live within families and communities, form businesses and institutions, create nations, cultures and economic systems, and are now evolving into a global civilization. At all these levels, unity is what makes these systems work best. Social cohesion is an indicator of integration, and fragmentation a sign of disintegration. The same is true in nature, where organisms belong to species forming communities and ecosystems

together making up the planetary biosphere. This unity expresses itself in space, with multiple levels of integration up to the global level, and in time, with unity expressed as a dynamic balance in constantly evolving systems, achieving higher levels of diversity, efficiency and complexity (Dahl 1996).

One characteristic, then, of unity is sustainability as the system persists over time through cooperation and reciprocity. Another characteristic is moderation, since no system can grow forever in a finite world, and should instead seek the optimal size for its particular function. In human societies, unity is also expressed as gender balance between the sexes, where every individual contributes to the well-being of the whole, as one dimension of the justice that is essential to a united community. This unity is facilitated when everyone is motivated by a spirit of service to others, seeing work as worship to create wealth for all.

How to contribute to unity?

This complex systems framework highlights an important point for every individual: that we can best contribute to unity through complete abnegation. This is the exact opposite of present concepts of success. It is selfish desire and material attachments that contribute to disunity. The only success an individual should seek is spiritual success, and this comes through humility and selflessness driven by a love of the Divine reflected in everyone and everything. Human nobility comes from contributing one's qualities and talents, one's capacities for creativity and innovation, in service to the common good.

It follows that the institutions of society, whether of government, business or civil society, should have as their primary purpose to contribute to the unity of the whole by performing some useful service efficiently. Since every individual has a capacity to create wealth through some kind of meaningful work, all those capacities should be united in the joint effort of wealth creation. Wealth in this context means much more than material wealth, but should include other dimensions of civilization such as knowledge, science, art, beauty, and harmony with nature. At the collective level of enterprises, the aim should be to employ all those human capacities to provide goods or perform a function or service that best fits some purpose in a unified system. Together the economic system should fulfil the needs of all within it while implementing social justice and environmental responsibility, since unity with nature is also important. Thus, at all levels, success comes from maximizing unity, cohesion, cooperation and reciprocity, expressed at the spiritual level as love.

Putting unity into action

The essence of both the scientific and Baha'i approaches to rethinking success is really acknowledging that success is collective. Unity is not an individual characteristic. What good is success to you as an individual if everybody else around you is failing? We all need to be successful together or we shall all fail together.

In our globalized world, we need to explore how to look at planetary success. We have no alternative to succeeding on this planet, as we have reached planetary boundaries, overshooting many of them, and upsetting the balance of natural systems. How can we bring our impacts back into balance with planetary limits? This means achieving balance and sustainability in our accounting of natural capital and human capital as well as financial capital. We should abandon the wrong measures of success such as GDP or other purely economic or monetary statistics. These fail to measure success but drive the system towards endless growth regardless whether it's constructive or destructive.

For an enterprise, that means considering how it contributes to greater unity for the employees within it, the people it serves and the wider community. It needs to assess how it manages positively and responsibly all the material and energy flows with which it interacts. It should rethink every part of its system, so that success is not how many more plastic packages it has sold, but can it find alternative packaging that can be recycled or become part of the closed cycles of a circular economy? A company that looks at its individual short term success in terms of financial growth without looking for innovative ways to rein in its production of greenhouse gases or to produce fully sustainable products will no longer have clients. Both its poor reputation and the practical climate consequences of its actions will eventually leave it without people who will want to buy or consume its production. Its

survival will depend on how well it integrates into a green and circular economy, as one efficient part of a united, coherent system of production and consumption. Unity would be measured as integration up and down a supply chain, sustainably managing inputs and ensuring that wastes are reused or recycled, providing meaningful work for everyone in a community, and creating and distributing wealth so that everyone is wealthy and no one is poor or left behind. Profit should just be one measure of efficiency among others, maintaining an adequate financial flow to allow the enterprise to perform its core functions in service to society.

Everyone should start thinking about how to take a systems approach to this idea of success, recognizing that success is a dynamic process in interaction with others, that success is really achieving unity in continuing balance, a balance of the necessary material needs we all have while also aiming for uplifting spiritual nourishment for all. Success requires continuing processes of action, learning and reflection as we advance in a spirit of service, where hopefully, instead of diverging towards catastrophe, we will be converging towards a more sustainable society both in material and spiritual terms.

REFERENCE

Dahl, Arthur Lyon. 1996. *The Eco Principle: Ecology and Economics in Symbiosis*. London: Zed Books Ltd, and Oxford: George Ronald.

Also published online at <https://medium.com/@ebbf/unity-indicator-of-true-success-20c381885622>

How can humanity live in harmony with the planet?

Baha'i World News Service, 13 February, 2020

WINDSOR, United Kingdom — A cross section of social actors in the United Kingdom, including scientists and representatives of civil society and religious communities, recently gathered at St. George's House in Windsor Castle to examine how religion can inspire unity of thought and action on climate change issues. Established more than 50 years ago by the Duke of Edinburgh, St. George's House is an organization that aims to promote dialogue on major issues facing British society.



Image: [Baha'i World News Service](#)

“Protecting the environment is clearly more than a question of reducing carbon emissions,” says Karl Wightman, representing the country's Baha'i Office of Public Affairs at the gathering. “The real issue here is perhaps the most profound question humanity has ever faced—how can we **envision a sustainable future** and an interdependent civilization?”

The group reflected on the diverse spiritual, secular, and academic perspectives offered, and considered fundamental questions about collective environmental efforts.

There was consensus among participants that what is needed goes beyond technical solutions to immediate problems. Humanity must also ask searching questions about the prevalent consumer culture and its underlying values. “What we need is a new understanding as to what happiness is,” said one participant. Another participant noted that “religion contains teachings that ameliorate the human tendency toward consumption and instead promote contentment.” Infinite growth, participants felt, on a planet with finite resources, is unsustainable.

The discussion also highlighted the idea that religion should be viewed as more than an instrument for mobilizing people. Religious teachings shed light on the **relationship between society and the natural world** and speak to the underlying question of excessive materialism that is associated with the exploitation and degradation of the environment.

As a collective contribution to the discourse on climate change, the insights from this consultation will inform a joint paper that will be submitted to the 26th session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP 26).

Religious communities have been significant contributors to previous sessions of this conference. For the landmark conference **held in Paris in 2015** (COP 21), the Baha'i International Community (BIC) prepared a **statement**, which comments on the role of religious faith in this issue.

The BIC statement reads in part: "Establishing sustainable patterns of individual and collective life, will... require not only new technologies, but also a new consciousness in human beings, including a new conception of ourselves and our place in the world.

"From where will this consciousness arise? And where will the volition and self-discipline needed to embody it in countless cities, towns, and villages be found? Qualities such as the capacity to sacrifice for the well-being of the whole, to trust and be trustworthy, to find contentment, to give freely and generously to others derive not from mere pragmatism or political expediency. Rather they arise from the deepest sources of human inspiration and motivation. In this, faith has shown itself to be key, whether in the efficacy of sustainability efforts or the capacity of the human race."

Source: Baha'i World News Service <https://news.bahai.org/story/1387/>

Highlights from the Complex Systems Science and Global Challenges Gathering

Video from a colloquium in Stockholm, Sweden, 7-9 December 2019

A newly released video highlights some of the essentials statements made by leading international specialists in complexity science including IEF President Arthur Lyon Dahl.

Link to the 35 min. video: <https://www.youtube.com/watch?v=Cd6Hgy3a-bc&feature=youtu.be>

Link to the conference report: <https://www.iefworld.org/node/1016>

First Earth Day 1970

Arthur Lyon Dahl, President, International Environment Forum

22 April 2020 will mark the fiftieth anniversary of the first Earth Day, which was organized in the United States on 22 April 1970, helping to launch the environmental movement. Twenty million Americans took part. I participated in the Earth Day events in Washington, D.C., the nation's capital, where I was a Visiting Post-doctoral Research Associate in the Department of Botany at the Smithsonian Institution's National Museum of Natural History. I volunteered to be a speaker, and was assigned to the Walt Whitman High School in Arlington, Virginia, across the river from Washington. There was a student Earth Day assembly with a large audience, where I spoke on environmental problems such as air and water pollution and their world solutions. In particular, I



described the Santa Barbara oil spill in California the year before, after a leak during offshore drilling sent large volumes of oil and tar onto the beaches.

I was finishing my doctorate in marine biology at the University of California at Santa Barbara at the time, and participated in the initial studies there of the impact of oil pollution on coastal ecosystems.



This was the beginning of my own 50 years of environmental action, including research on long-term changes on coral reef ecosystems in the Caribbean and Pacific Islands, representing the Bahá'í International Community at the United Nations Conference on the Human Environment in Stockholm, Sweden, in 1972, spending a decade as Regional Ecological Adviser to all the Pacific Island governments, and then a long career in the UN Environment Programme.

Faith for Earth: Achievement Report, 2018-2019

UN Environment Programme, 27 February 2020

This report highlights the achievements of the [Faith for Earth Initiative](#) over the period 2018-2019 and progress made towards the attainment of its three overarching goals:

- 1) Strengthen Partnership with Faith-Based Organizations' Leadership for Policy Impact
- 2) Green Faith-Based Organizations' Investments, Operations and Assets
- 3) Establish an Accessible Knowledge-Based Support System

These goals were formulated to support the attainment of the Sustainable Development Goals and are intended to complement the holistic design of the SDGs. Faith-Based Organizations (FBOs) can positively contribute to sustainable development in comprehensive and diverse ways and the Initiative seeks to facilitate and catalyse these processes. This involves both broadly ensuring FBO's work is aligned to the SDGs, as well as contextual engagement that embraces the particularities of each faith. Given that Faith for Earth is primarily a normative advocacy initiative, much of the work focuses on expanding its network of affiliated FBOs and forging productive partnerships. These diverse partnerships may consist of linking FBOs with other FBOs, actors in the private and business sectors or with bilateral and multilateral institutions.

Source: <https://www.unenvironment.org/resources/report/faith-earth-achievement-report-2018-2019>

UN study shows accelerating climate change on land, sea and in the atmosphere

World Meteorological Organization, 10 March 2020

A wide-ranging UN climate report, released on Tuesday, shows that climate change is having a major effect on all aspects of the environment, as well as on the health and wellbeing of the global population.

The report, The WMO Statement on the State of the Global Climate in 2019, which is led by the UN weather agency (World Meteorological Organization), contains data from an extensive network of partners.

It documents physical signs of climate change – such as increasing land and ocean heat, accelerating sea level rise and melting ice – and the knock-on effects on socio-economic development, human health, migration and displacement, food security, and land and marine ecosystems.

‘Way off track’ to meet 1.5 degree target

Writing in the foreword to the report, UN chief António Guterres warned that the world is currently “way off track meeting either the 1.5°C or 2°C targets that the Paris Agreement calls for”, referring to the commitment made by the international community in 2015, to keep global average temperatures well below 2°C above pre-industrial levels.

Several heat records have been broken in recent years and decades: the report confirms that 2019 was the second warmest year on record, and 2010-2019 was the warmest decade on record. Since the 1980s, each successive decade has been warmer than any preceding decade since 1850.

The warmest year so far was 2016, but that could be topped soon, said WMO Secretary-General Petteri Taalas. “Given that greenhouse gas levels continue to increase, the warming will continue. A recent decadal forecast indicates that a new annual global temperature record is likely in the next five years. It is a matter of time”, added the WMO Secretary-General.

In an interview with UN News, Mr. Taalas said that, there is a growing understanding across society, from the finance sector to young people, that climate change is the number one problem mankind is facing today, “so there are plenty of good signs that we have started moving in the right direction”.

“Last year emissions dropped in developed countries, despite the growing economy, so we have to show that you can detach economic growth from emission growth. The bad news is that, in the rest of the world, emissions grew last year. So, if we want to solve this problem we have to have all the countries on board”.

Mr. Taalas added that countries still aren’t fulfilling commitments they made at the UN Paris climate conference in 2015, leaving the world currently on course for a four to five degree temperature increase by the end of this century: “there’s clearly a need for higher ambition levels if we’re serious about climate mitigation”.

Australian wildfires spark global CO2 increase

Mr. Taalas noted that 2020 has seen the warmest January recorded so far, and that winter has been “unseasonably mild” in many parts of the northern hemisphere.

Ongoing warming in Antarctica saw large-scale ice melt and the fracturing of a glacier, with repercussions for sea level rise, and carbon dioxide emissions spiked following the devastating Australian bushfires, which spread smoke and pollutants around the world.

Australia’s 2018-2019 summer was the hottest ever recorded, reaching a peak of 41.9 degrees centigrade on December 18. Australia’s seven hottest days on record, and nine of the 10 hottest, occurred in 2019.

The country was not the only place affected by extreme heat, or wildfires. Heat records were broken in several European countries, including France, Germany, and the United Kingdom. Even Nordic countries saw record-breaking temperatures, including Finland, which registered a high of 33.2 degrees in the capital, Helsinki.

Several high latitude regions, including Siberia and Alaska, saw high levels of fire activity, as did some parts of the Arctic, where it was previously extremely rare. Indonesia and neighbouring countries had their most significant fire season since 2015, and total fire activity in South America was the highest since 2010.

The widespread impacts of ocean warming

Greenhouse gas emissions continued to grow in 2019, leading to increased ocean heat, and such phenomena as rising sea levels, the altering of ocean currents, melting floating ice shelves, and dramatic changes in marine ecosystems.

The ocean has seen increased acidification and deoxygenation, with negative impacts on marine life, and the wellbeing of people who depend on ocean ecosystems. At the poles, sea ice continues to decline, and glaciers shrunk yet again, for the 32nd consecutive year.

Between 2002 and 2016, the Greenland ice sheet lost some 260 Gigatonnes of ice per year, with a peak loss of 458 Gigatonnes in 2011/12. The 2019 loss of 329 Gigatonnes was well above average.

Unprecedented floods and droughts

In 2019, extreme weather events, some of which were unprecedented in scale, took place in many parts of the world. The monsoon season saw rainfall above the long-term average in India, Nepal, Bangladesh and Myanmar, and flooding led to the loss of some 2,200 lives in the region.

Parts of South America were hit by floods in January, whilst Iran was badly affected in late March and early April. In the US, total economic losses from flooding were estimated at around \$20 billion. Other regions suffered a severe lack of water. Australia had its driest year on record, and Southern Africa, Central America and parts of South America received abnormally low rains.

2019 also saw an above-average number of tropical cyclones, with 72 in the northern hemisphere, and 27 in the southern hemisphere. Some notably destructive cyclones were Idai, which caused widespread devastation in Mozambique and the east coast of Africa; Dorian, which hit the Bahamas and remained almost stationary for some 24 hours; and Hagibis, which caused severe flooding in Japan.

The human cost

The changing climate is exerting a toll on the health of the global population: the report shows that in 2019, record high temperatures led to over 100 deaths in Japan, and 1,462 deaths in France. Dengue virus increased in 2019, due to higher temperatures, which have been making it easier for mosquitos to transmit the disease over several decades.

Following years of steady decline, hunger is again on the rise, driven by a changing climate and extreme weather events: over 820 million people were affected by hunger in 2018. The countries in the Horn of Africa were particularly affected in 2019, where the population suffered from climate extremes, displacement, conflict and violence. The region suffered droughts, then unusually heavy rains towards the end of the year, which was a factor in the worst locust outbreak in the past 25 years.

Worldwide, some 6.7 million people were displaced from their homes due to natural hazards – in particular storms and floods, such as the many devastating cyclones, and flooding in Iran, the Philippines and Ethiopia. The report forecasts an internal displacement figure of around 22 million people throughout the whole of 2019, up from 17.2 million in 2018.

COP26: time to aim high

"We have to aim high at the next climate conference in Glasgow in November", said Mr. Guterres, speaking at the launch of the report at UN Headquarters in New York, on Tuesday, referring to the 2020 UN Climate Change Conference (COP26), due to be held in the Scottish City in November.

The UN chief called on all countries to demonstrate that emission cuts of 45 per cent from 2010 levels are possible this decade, and that net-zero emissions will be achieved by the middle of the century.

Four priorities for COP26 were outlined by Mr. Guterres: more ambitious national climate plans that will keep global warming to 1.5 degrees above pre-industrial levels; strategies to reach net zero emissions by 2050; a comprehensive programme of support for climate adaptation and resilience; and financing for a sustainable, green economy.

'We will not fight climate change with a virus'

The UN chief also addressed the ongoing spread of COVID-19, in response to a question on its likely effect on the climate, given the resulting drop in economic activity and, consequently, emissions. Mr. Guterres firmly responded that "both require a determined response. Both must be defeated".

Although emissions have been reduced, Mr. Guterres noted that "we will not fight climate change with a virus". In addition, he underlined the importance of not allowing the fight against the virus to distract from the need to defeat climate change, inequality and the many other problems the world is facing.

Whilst the disease is expected to be temporary, climate change, added the Secretary-General, has

been a phenomenon for many years, and and will "remain with us for decades and require constant action".

Multiple eco-crises could trigger 'systemic collapse'

Phys.org, 6 February 2020

Overlapping environmental crises could tip the planet into "global systemic collapse," more than 200 top scientists have warned. Climate change, extreme weather events from hurricanes to heatwaves, the decline of life-sustaining ecosystems, food security and dwindling stores of fresh water—each poses a monumental challenge to humanity in the 21st century.

Out of 30 global-scale risks, these five topped the list both in terms of likelihood and impact, according to scientists surveyed by Future Earth, an international research organisation under the International Science Council. In combination, they "have the potential to impact and amplify one another in ways that might cascade to create global systemic collapse," a team led by Maria Ivanova, a professor at the Center for Governance and Sustainability at the University of Massachusetts, said in a 50-page report "Our Future on Earth": <https://futureearth.org/publications/our-future-on-earth/>.

Extreme heat waves, for example, speed global warming by releasing planet-warming gases from natural sources, even as they intensify water crises and food scarcity. Biodiversity loss, meanwhile, weakens the capacity of natural and agricultural systems to cope with climate extremes, also putting food supplies at risk. Scientists worry especially that rising temperatures could tip the planet's climate system into a self-perpetuating spiral of global warming. As it is, humanity is struggling—so far unsuccessfully—to cap CO₂ and methane emissions, mostly from burning fossil fuels. If at the same time a warming Earth also begins to emit large amounts of these gases from, say, thawing permafrost, such efforts could be overwhelmed. Heat waves are a direct threat to human lives and can cause food shortages as well

"Many scientists and policymakers are embedded in institutions that are used to thinking and acting on isolated risks, one at a time," the report said. "We call on the world's academics, business leaders and policy makers to pay attention to these five global risks and ensure they are treated as interacting systems."

Nearly 1,000 decision makers and top CEOs highlighted the same threats in a similar survey last month ahead of the World Economic Forum meeting in Davos, Switzerland.

"2020 is a critical time to look at these issues," said Amy Luers, Executive Director of Future Earth. "Our actions in the next decade will determine our collective future."

A year of decisions

In October, the world's nations are set to gather for a major United Nations meeting of the Convention on Biological Diversity in Kunming, China to try to stanch the destruction of ecosystems and the decline of biodiversity. Scientists agree that Earth is at the outset of a mass extinction event—only the 5th in half-a-billion years—which could drive a million species, or one-in-eight, into oblivion over the coming decades or centuries.

The following month, a critical UN climate summit COP26 in Glasgow will reveal whether the world's major economies are willing to ramp up carbon cutting pledges that fall far short of what is needed to keep the planet hospitable for our species. In the future, humanity will face the devastating combined impacts of multiple interacting climate hazards

2020 is also a critical year in ongoing negotiations over the high seas, where a Far West free-for-all has led to overfishing and unrestrained resource extraction.

Some scientists have begun to look at the likelihood and impacts of cascading environmental crises. Recent research has shown, for example, that some parts of the world may soon be coping with up to six extreme weather events at once, ranging from heat waves and wildfires to diluvian rains and

deadly storm surges. "Human society will be faced with the devastating combined impacts of multiple interacting climate hazards," Erik Franklin, a researcher at the University of Hawaii's Institute of Marine Biology and co-author of a key study in late 2018, told AFP. "They are happening now and will continue to get worse." That is true even in optimistic emissions reduction scenarios. In all such scenarios, tropical coastal areas suffer the most.

If, for example, humanity caps global warming at two degrees Celsius (3.6 degrees Fahrenheit) above preindustrial levels, New York City will likely face one major climate hazard every year, on average, by 2100. The 2015 Paris climate treaty calls for holding the rise in temperature to "well below" 2C. If, however, carbon pollution continues unabated, New York City could be hit by up to four such calamities at once, including extreme rain, sea level rise and storm surges.

Source: based on an article by Marlowe Hood, Phys.org: <https://phys.org/news/2020-02-multiple-eco-crises-trigger-collapse-scie...>

Future Earth Launches the Global Risks Perceptions Initiative

Future Earth has launched a new **Global Risks Perceptions Initiative** to analyze views on global risks from different scientific communities. The first edition of the Initiative's annual analysis, the **Risks Perceptions Report 2020** was released on 12 February 2020. It summarizes a survey of more than 200 scientists from 52 countries – with more than 50% of respondents from the Future Earth community – on four major themes: the interconnections between global risks, the urgency of top global risks, future committed risks, and emerging risks. This landmark report makes an important contribution by bringing scientists' voices into the global dialogue on risks.

Key Messages

- Surveyed scientists identified climate-extreme weather-biodiversity-food-water as a critical nexus of risk that could lead to a global systemic crisis.
- Climate change is a central driver of potential future global systemic crises according to 72% of respondents.
- Scientists rank environmental and societal risks as the most urgent, followed by geopolitical, technological and economic risks.
- Most emerging global risks identified by surveyed scientists were societal risks, e.g. erosion of trust, growing inequality, and a rise in nationalism, etc.
- A failure to consider feedbacks across systems is also a critical emerging risk.

Scientists were asked to identify risks which they believe we have already committed to or will commit to in the next 10-years that will put us on a path towards irreversible or catastrophic outcomes. Scientists overwhelmingly pointed towards climate change, biodiversity loss and ecosystem collapse.

These results echo conclusions in the IPCC Special Report on Global Warming of 1.5°C ([IPCC 2018](#)) and the Special Report on the Ocean and Cryosphere in a Changing Climate ([IPCC 2019](#)) which highlight a number of long-term impacts already committed to in the climate system. For example, when a forest is dying, it does not release CO₂ to the atmosphere immediately, but gradually over the following years and decades through microbial decomposition (i.e. committed emissions). Similarly, fragmented forests do not immediately lose species in those patches but they gradually go extinct locally as the forest patch is insufficient in size to support their populations ([Tilman et al 1994](#)). Recent assessment by the IPBES warns that up to a million species may be threatened with extinction within decades due to a combination of land use change, direct exploitation, climate change, pollution and invasive species ([IPBES 2019](#)).

You can download the report here: <https://futureearth.org/initiatives/other-initiatives/grp/the-report/>

Source: <https://futureearth.org/initiatives/other-initiatives/grp/>
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