



**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](mailto: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.

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**Wilmette Institute Course**  
**“Sustainable Development and the Prosperity of Humankind”**

The Wilmette Institute will offer an online course from September 5 - December 1, 2019. This course is of vital interest to everyone concerned about the serious social, economic, and environmental challenges facing humankind.

For the first time, this course can also be taken for college credit. If you are a university or college student and wish to take the course for credit, you must obtain agreement from your education institution in advance. For advice and support with this process, please go to:

<http://wilmetteinstitute.org/credit/>.

Many people are troubled by the poverty and suffering of people at home and abroad, concerned about the future of their children, and worried about the destruction of the environment on which their lives depend. These are the challenges of sustainable development, requiring a fundamental transformation in the economic, social, and environmental actions of our lives and society. This course will explore the profound implications for sustainability of our higher human purpose, as explained in the Baha'i teachings, and the scientific and spiritual principles that can ensure the future prosperity of humankind. Today the nations have agreed on Sustainable Development Goals with detailed targets and indicators that define how to reach sustainability by 2030, leaving no one behind. We shall explore the concept of sustainability in all its dimensions, and how only an ethical and spiritual transformation, as defined in the Bahá'í Writings, will motivate people to transform their individual lifestyles as well as their local communities which are essential steps towards a more prosperous, equitable, and sustainable future.

Course Faculty: [Arthur Lyon Dahl](#), [Christine Muller](#), [Laurent Mesbah](#)

For more information about the course and to register, visit the [course website here](#).

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## Members Corner

As IEF members we are focused on the needs of humanity and how we can best serve it considering our personal circumstances. IEF aims to support its membership in that quest. At the same time, IEF depends on volunteers. Considering the following questions may help us in our journey together.

What is your vision for IEF?

How can IEF serve you better?

If you had unlimited time, what would be your dream service for IEF?

Realistically, how would you be able to support the work of IEF?

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## In natural disasters, capacities of local communities vital

Baha'i World News Service, July 16, 2019 <https://news.bahai.org/story/1338/>

BIC NEW YORK — With a rising risk of natural disasters around the world, the relationship between local capacity and preparedness and international and national assistance was examined as part of a dynamic discussion hosted by the Baha'i International Community (BIC).

“As we move from the global level to the regional, national, local, and community, the silos that sometimes divide us start to dissipate. We see at the community level, the community leader is also a neighbor, also a teacher. Everyone wears so many hats,” said Daniel Perell, a BIC representative. “That level of common enterprise that is so common at the neighborhood level needs to rise up to the international level.”

International response to natural disasters is vital to bringing to stricken areas urgent humanitarian relief, material resources, and knowledge. But alongside aid, the role of local capacity and preparedness is a vital area of learning, speakers noted. For the Baha'i community, the power of unity and collective enterprise as well as the importance of certain capacities at the local level has been demonstrated in [a number of cases natural disaster recovery](#) in recent years.

Dozens of participants, representing a diversity of non-governmental organizations with experience in natural disaster response and recovery, joined the discussion held on Friday alongside the [United Nations' High-Level Political Forum](#) on Sustainable Development. The event was co-organized by the BIC, the U.N. Office for Disaster Risk Reduction, and the Global Network of Civil Society Organisations for Disaster Reduction. Mami Mizutori, the Assistant Secretary-General and Special Representative of the Secretary-General for Disaster Risk Reduction, also attended and spoke.

The Forum, which began on 9 July and continues through Thursday, is an annual gathering for U.N. member states and NGOs to reflect on progress in the [Sustainable Development Goals](#), 17 global targets that the international community aims to [reach by 2030](#). [Friday's panel](#) was one of three organized by the BIC, focusing on different target areas of the Development Goals. The other two panels, held on Thursday, focused on [how education can empower youth to contribute to the progress of their societies](#) and [conceptualizing peace not merely as an absence of conflict but as a condition of collective thriving](#).

In its [statement to the Forum](#), the BIC commended the international community's consensus around the Sustainable Development Goals, but cautioned that “translating those aspirations into lived reality will require a tremendous expansion of Agenda 2030's ‘spirit of strengthened global solidarity’.” Crucial in this regard will be ensuring that recognition of the interconnected nature of humanity is a principal consideration in both policy-making and action.”

Friday's disaster response panel showed the diversity of organizations that are thinking about the critical role of local communities. Central to this is the relationship between national and international policy and local capacity and ability to organize. Several speakers discussed the importance of global

disaster response and recovery, but noted that national and international policies need to be made in concert with local communities and informed by their own practices.



Willy Missack (see picture above), who works with Oxfam in Vanuatu, shared his country's experience in connecting policy-making to community practices, explaining that effective policies come when the government and civil society organizations work together. Transformation, he noted, comes from unified action at the grassroots, but this needs to be coordinated with the national level.

Kathryn Adams, executive director of Haiti-based LIDÈ, spoke about her organization's efforts to help locals develop expertise in medical, psychological, legal, and other skills necessary to disaster response. "We don't do enough in disaster response to embed resilience. By that I mean finding ways to turn disaster response into an opportunity to empower people to build tools for future use," Dr. Adams explained.

The Baha'i community's experience indicates that people can exhibit remarkable resilience, selflessness, resourcefulness, and creativity during times of disaster. In its [2016 statement, \*Rising Together: Building the Capacity to Recover from Within\*](#), the Baha'i International Community wrote that communities "that have been especially effective in responding have – prior to the disaster – been consciously working to create distinctive and beneficial patterns of collective life." In short, localities where the fabric of community life is strong are more resilient and better equipped to respond to disasters.

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## Unsustainable Agriculture

### Urgency of a rapid transition

In our justifiable anxiety over fossil fuels and climate change, and the loss of biodiversity, we have perhaps not paid enough attention to the unsustainability of intensive agriculture. The [2019 Sustainable Development Report](#) from the Sustainable Development Solutions Network (SDSN) says that agriculture destroys forests and biodiversity, squanders water, and releases one-quarter of global greenhouse-gas (GHG) emissions. In total, 78% of the nations of the world are failing on sustainable nitrogen management. At the same time, one-third of food is wasted, 800 million people remain undernourished, 2 billion are deficient in micronutrients, and obesity is on the rise. In addition to the impacts of intensive agriculture at home, high-income countries generate negative impacts through their imports. For example, international demand for palm oil and other commodities fuels tropical deforestation.

In the United Kingdom, the [RSA Food, Farming and Countryside Commission](#), established in 2017, has just issued its final report "Our Future in the Land". The report's conclusions are relevant to many other countries as well, so they are worth summarising here.

The urgency is the same as for climate change. The actions taken in the next ten years, to stop ecosystems collapse, to recover and regenerate nature, and to restore people's health and wellbeing, are now critical. In the UK, agriculture contributes 11% of GHG emissions and is the biggest driver of wildlife loss with a 67% decline in the abundance of priority species since 1970 and with 13% of these now close to extinction. The true cost of cheap, unhealthy food is a spiralling public health crisis and a cause of environmental destruction. The UK's food and farming system must be radically transformed and become sustainable within 10 years.

Driven by poor policy and perverse incentives, the food and farming system has become one of the main drivers of the human and ecosystem crisis. From deforestation, loss of wildlife, and soil degradation, to widespread pollution and spiralling diet-related ill-health, people and planet alike have suffered. Far from being the sector that nourishes us, and the land on which we all depend, the system has damaged and depleted our precious and finite resources.

Decades of policy to produce ever cheaper food has created perverse and detrimental consequences. Farm gate prices are low; and while food in the supermarkets is getting cheaper, the true cost of that policy is simply passed off elsewhere in society – in a degraded environment, spiralling ill-health and impoverished town centres. The UK has the third cheapest food prices amongst developed countries, but the highest food insecurity in Europe in terms of people being able to afford a healthy diet.

Many farmers are at a loss as to the best path forward: Agroecology or high-tech solutions? More intensification, extensification or diversification? And how to disinvest from investments made in good faith? Farmers are open to change but anxious, and locked into their current business models by debt, skills, or circumstance.

Farmers must be enabled to shift from intensive farming to more organic and wildlife friendly production, raising livestock on grass, and growing more nuts and pulses. "Agroecology" practices must be supported – such as organic farming and agroforestry, where trees are combined with crops and livestock such as pigs or egg-laying hens.

A National Nature Service should be created to give opportunities for young people to work in the countryside and, for example, tackle the climate crisis by planting trees or restoring peatlands.

The Commission sets out radical and practical ways for policymakers, businesses, and communities to respond to these challenges.

Healthier and life-enhancing diets mean more and better fresh fruit, vegetables, nuts and pulses, less, but better meat and dairy products, with livestock products coming from climate and nature-friendly production, with zero food waste, and rebuilding our connections with food producers as well as with each other. Much attention is directed towards the challenge of feeding nine billion people by 2030. Nevertheless, we already produce more than enough for everyone in the world to eat well. The problem is that today food products are inefficiently and unsustainably produced, profligately wasted, and unfairly distributed.

The report makes fifteen recommendations in three areas:

### **Healthy food is everybody's business**

- Levelling the playing field for a fair food system – good food must become good business
- Committing to grow the UK supply of fruit, vegetables, nuts and pulses, and products from UK sustainable agriculture, and to using them more in everyday foods
- Implementing world-leading public procurement and using this powerful tool to transform the market; schools, hospitals, and prisons should buy more sustainably produced British food
- Establishing collaborative community food plans to help inform and implement national food strategies to meet the different needs of communities around the UK

- Reconnecting people and nature to boost health and wellbeing

### **Farming is a force for change - unleashing a fourth agricultural revolution driven by public values**

- Designing a ten-year transition plan for sustainable, agroecological farming by 2030
- Backing innovation by farmers to unleash a fourth agricultural revolution
- Making sure every farmer can obtain trusted, independent advice by training a cadre of peer mentors and farmer support networks
- Boosting cooperation and collaboration by extending support for Producer Organisations to all sectors
- Establishing a National Agroecology Development Bank to accelerate a fair and sustainable transition

### **A countryside that works for all, with rural communities that are a powerhouse for a fair and green economy**

- Establishing a national land use framework in England inspires cooperation based on the public value of land, mediating, and encouraging multipurpose uses
- Investing in the skills and rural infrastructure to underpin the rural economy
- Creating more good work in the regenerative economy
- Developing sustainable solutions to meet rural housing needs
- Establishing a National Nature Service that employs the energy of young people to kickstart the regenerative economy

Sources: 2019 Sustainable Development Report from SDSN <https://www.sdgindex.org/reports/sustainable-development-report-2019>

RSA Food, Farming and Countryside Commission (2019) "Our Future in the

Land" <https://www.thersa.org/discover/publications-and-articles/reports/future-land>

<https://www.theguardian.com/environment/2019/jul/16/true-cost-of-cheap-food-is-health-and-climate-crises-says-commission>

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## **Climate Change and Land - an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems**

On 8 August 2019, the Intergovernmental Panel on Climate Change (IPCC) issued a new special report on climate change and land. This comprehensive report was prepared by 107 experts from 52 countries. It is the first IPCC report in which a majority of the authors are from developing countries. Women also account for 40% of the Coordinating Lead Authors. The author team drew on the contributions of 96 Contributing Authors; included over 7,000 cited references in the report; and considered a total of 28,275 expert and government review comments.

In its press release, the IPCC states that "Land is already under growing human pressure and climate change is adding to these pressures. At the same time, keeping global warming to well below 2°C can be achieved only by reducing greenhouse gas emissions from all sectors including land and food."

The report shows that food security will be increasingly affected by future climate change through yield declines – especially in the tropics – increased prices, reduced nutrient quality, and supply chain disruptions, according to Priyadarshi Shukla, Co-Chair of IPCC Working Group III.

Different countries will experience different effects, but poor countries in Africa, Asia, and Latin America and the Caribbean will suffer the most adverse impacts.

About 500 million people are already living in areas of desertification, which is an increasing problem with climate change. The following statement in the press release is one of many issues stated in the



report that show the interconnectedness in the natural systems: “When land is degraded, it becomes less productive, restricting what can be grown and reducing the soil’s ability to absorb carbon. This exacerbates climate change, while climate change in turn exacerbates land degradation in many different ways.”

The report points out that about one third of food produced is lost or wasted and that reducing such waste and changing diets to more plant-based foods will both reduce greenhouse gas emissions and help food security.

The following is an edited version of the [main headline statements](#) from the IPCC report.

### **People, land, and climate in a warming world**

Land provides the principal basis for human livelihoods and well-being including the supply of food, freshwater, and multiple other ecosystem services, as well as biodiversity. Human use directly affects more than 70 percent of the global, ice-free land surface. Land also plays an important role in the climate system.

Since the pre-industrial period, the land surface air temperature has risen nearly twice as much as the global average temperature. Climate change, including increases in frequency and intensity of extremes, has adversely impacted food security and terrestrial ecosystems as well as contributed to desertification and land degradation in many regions.

Agriculture, Forestry and Other Land Use (AFOLU) activities accounted for around 13% of CO<sub>2</sub>, 44% of methane (CH<sub>4</sub>), and 82% of nitrous oxide (N<sub>2</sub>O) emissions from human activities globally during 2007-2016, representing 23% of total net anthropogenic emissions of GHGs. The natural response of land to human-induced environmental change caused a net sink about the equivalent of 29% in total CO<sub>2</sub> emissions; the persistence of the sink is uncertain due to climate change. If emissions associated with pre- and post-production activities in the global food system are included, the emissions are estimated to be 21-37% of total net anthropogenic GHG emissions.

Changes in land conditions, either from land-use or climate change, affect global and regional climates. At the regional scale, changing land conditions can reduce or accentuate warming and affect the intensity, frequency, and duration of extreme events. The magnitude and direction of these changes vary with location and season.

Climate change creates additional stresses on the land exacerbating existing risks to livelihoods, biodiversity, human and ecosystem health, infrastructure, and food systems. Increasing impacts on the land are projected under all future GHG emission scenarios. Some regions will face higher risks, while some regions will face risks previously not anticipated. Cascading risks with impacts on multiple systems and sectors also vary across regions.

### **Adaptation and mitigation response options**

Many land-related responses that contribute to climate change adaptation and mitigation can also combat desertification and land degradation as well as enhance food security. The potential for land-related responses and the relative emphasis on adaptation and mitigation is context specific; it includes the adaptive capacities of communities and regions. While land-related response options can make important contributions to adaptation and mitigation, there are some barriers to adaptation and limits to their contribution to global mitigation.

Most of the response options assessed contribute positively to sustainable development and other societal goals. Many response options can be applied without competing for land and have the potential to provide multiple co-benefits. Thus, a further set of response options has the potential to reduce demand for land; thereby enhancing the potential for other response options to deliver across each of the climate-change adaptation and mitigation measures, combating desertification and land degradation, and enhancing food security.

Although most response options can be applied without competing for available land, some can increase demand for land conversion. At the deployment scale of several GtCO<sub>2</sub>yr<sup>-1</sup>, this increased

demand for land conversion could lead to adverse side effects for adaptation, desertification, land degradation, and food security. If applied on a limited share of total land and integrated into sustainably managed landscapes, there will be fewer adverse side-effects and some positive co-benefits can be realised.

Many activities for combating desertification can contribute to climate change adaptation with mitigation co-benefits, as well as to halting biodiversity loss with sustainable development co-benefits to society. Avoiding, reducing, and reversing desertification would enhance soil fertility, increase carbon storage in soils and biomass, and at the same time benefit agricultural productivity and food security. Preventing desertification is preferable to attempting to restore degraded land due to the potential for residual risks and maladaptive outcomes.

Sustainable land management, including sustainable forest management, can prevent and reduce land degradation, maintain land productivity, and sometimes reverse the adverse impacts of climate change on land degradation. It can also contribute to mitigation and adaptation. Reducing and reversing land degradation, at scales from individual farms to entire watersheds, can provide cost effective, immediate, and long-term benefits to communities and support several Sustainable Development Goals (SDGs) with co-benefits for adaptation and mitigation. Even with implementation of sustainable land management, limits to adaptation can be exceeded in some situations.

Response options throughout the food system, from production to consumption, including food loss and waste, can be deployed and scaled up to advance adaptation and mitigation. The total technical mitigation potential from crop and livestock activities, and agroforestry is estimated as 2.3-9.6 GtCO<sub>2</sub>e.yr<sup>-1</sup> by 2050. The total technical mitigation potential of dietary changes is estimated as 0.7-8 GtCO<sub>2</sub>e.yr<sup>-1</sup> by 2050.

Future land use depends, in part, on the desired climate outcome and the portfolio of response options deployed. All assessed modelled pathways that limit warming to 1.5°C or well below 2°C require land-based mitigation and land-use change, with most including different combinations of reforestation, afforestation, reduced deforestation, and bioenergy. A small number of modelled pathways achieve warming of only 1.5°C with reduced land conversion and, thus, reduced consequences for desertification, land degradation, and food security.

### **Enabling response options**

Appropriate design of policies, institutions, and governance systems at all scales can contribute to land-related adaptation and mitigation while facilitating the pursuit of climate-adaptive development pathways. Mutually supportive climate and land policies have the potential to save resources, amplify social resilience, support ecological restoration, and foster engagement and collaboration between multiple stakeholders.

Policies that operate across the food system, including those that reduce food loss and waste and influence dietary choices, enable more sustainable land-use management, enhanced food security, and low emissions trajectories. Such policies can contribute to climate change adaptation and mitigation; reduce land degradation, desertification, and poverty; and improve public health. The adoption of sustainable land management and poverty eradication can be enabled by improving access to markets, securing land tenure, factoring environmental costs into food, making payments for ecosystem services, and enhancing local and community collective action.

Acknowledging co-benefits and trade-offs when designing land and food policies can overcome barriers to implementation. Strengthened multilevel, hybrid, and cross-sectoral governance, as well as policies developed and adopted in an iterative, coherent, adaptive, and flexible manner can maximise co-benefits and minimise trade-offs, given that land management decisions are made from farm level to national scales, and both climate and land policies often range across multiple sectors, departments and agencies.

The effectiveness of decision-making and governance is enhanced by the involvement of local stakeholders (particularly those most vulnerable to climate change such as indigenous peoples and

local communities, women, and the poor and marginalised) in the selection, evaluation, implementation, and monitoring of policy instruments for land-based climate change adaptation and mitigation. Integration across sectors and scales increases the chance of maximising co-benefits and minimising trade-offs.

### Action in the near-term

Actions can be taken in the near-term, based on existing knowledge, to address desertification, land degradation, and food security while supporting longer-term responses that enable adaptation and mitigation to climate change. These include actions to build individual and institutional capacity, accelerate knowledge transfer, enhance technology transfer and deployment, enable financial mechanisms, implement early warning systems, undertake risk management, and address gaps in implementation and upscaling.

Near-term action to address climate change adaptation and mitigation, desertification, land degradation, and food security can bring social, ecological, economic and development co-benefits. Co-benefits can contribute to poverty eradication and more resilient livelihoods for those who are vulnerable.

Rapid reductions in anthropogenic GHG emissions across all sectors following ambitious mitigation pathways reduce negative impacts of climate change on land ecosystems and food systems. Delaying climate mitigation and adaptation responses across sectors would lead to increasingly negative impacts on land and reduce the prospect of sustainable development.

For the complete Summary for Policymakers of the report Climate Change and Land, go here:

<https://www.ipcc.ch/site/assets/uploads/2019/08/3.-Summary-of-Headline-Statements.pdf>

For links to the full report and specific chapters, go here: <https://www.ipcc.ch/srccl-report-download-page/>

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## World Scientists' Warning of a Climate Emergency

The Alliance of World Scientists invites all scientists to sign their new BioScience paper "World Scientists' Warning of a Climate Emergency" which they will present to world leaders. The article is short and can be read in fewer than eight minutes. Just go to <http://scientistswarning.forestry.oregonstate.edu/> to read and sign the paper.

The following is the condensed version of World Scientists' Warning of a Climate Emergency, by William J. Ripple, Christopher Wolf, and Thomas M. Newsome.

"We scientists have a moral obligation to clearly warn humanity of any great existential threat. In this paper, we present a suite of graphical vital signs of climate change over the last 40 years. Results show greenhouse gas emissions are still rising, with increasingly damaging effects. With few exceptions, we are largely failing to address this predicament. The climate crisis has arrived and is accelerating faster than many scientists expected. It is more severe than anticipated, threatening natural ecosystems and the fate of humanity. We suggest six critical and interrelated steps that governments and the rest of humanity can take to lessen the worst effects of climate change, covering 1) Energy, 2) Short-lived pollutants, 3) Nature, 4) Food, 5) Economy, and 6) Population. Mitigating and adapting to climate change entails transformations in the ways we govern, manage, feed, and fulfill material and energy requirements. We are encouraged by a recent global surge of concern. Governmental bodies are making climate emergency declarations. The Pope issued an encyclical on climate change. Schoolchildren are striking. Ecocide lawsuits are proceeding in the courts. Grassroots citizen movements are demanding change. As scientists, we urge widespread use of our vital signs and anticipate that graphical indicators will better allow policymakers and the public to understand the magnitude of this crisis, track progress, and realign priorities to alleviate climate change. The good news is that such transformative change, with social and ecological justice, promises greater human wellbeing in the long-run than business as usual. We believe that prospects



will be greatest if policy makers and the rest of humanity promptly respond to our warning and declaration of a climate emergency, and act to sustain life on planet Earth, our only home.”

For the full article, go here: <http://scientistswarning.forestry.oregonstate.edu/sites/sw/files/climate%20emergency%20Ripple%20et%20al%20%207-28-19.pdf>

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## Multi-Faith Responses to the Prospect of Climate Change and Geo-engineering

As policymakers face the magnitude of the 1.5-degree challenge, new technologies and approaches for capping temperature increases - referred to as climate engineering or geoengineering - are under growing discussion.

These approaches and technologies are in the early stages of development, carry significant uncertainty in terms of their effectiveness, are unproven at scale, and hold the potential for large-scale unintended consequences. Each technology in the geoengineering toolbox raises weighty ethical questions.

To equip religious groups to understand and advocate on these issues consistent with our moral values, GreenFaith has released a new report, "Playing God? Multi-Faith Responses to the Prospect of Climate Change."

The report is designed to help readers to understand the basics of geoengineering, recommendations for governance of the field, and religious and spiritual perspectives on the ethics of climate intervention.

The report is available for download here: <https://greenfaith.org/geoengineering>

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## Up-coming Cornell University Online Courses

**“Climate Change Science, Communication, and Action”** 5 weeks (Sept 3 – Oct 15, 2019)

Register: <https://civicecology.org/Course-CC>

This course covers the basics of climate change, from science to action. We delve into the subtleties of climate change communication and explore climate action from the standpoint of policy and through the lens of growing climate social movements. Using Drawdown’s comprehensive list of climate change solutions, we help you focus on a climate action that you can achieve during the course, and then provide a framework to help you plan post-course climate engagement. Cost: \$60.

**“Introduction to Environmental Education”** 5 weeks (Sept 3 – Oct 8, 2019)

Register: <https://civicecology.org/course-iee>

*Introduction to Environmental Education is the perfect course for anyone interested in starting a career in Environmental Education or improving their skillset. Participants will examine different education approaches and produce activity plans appropriate for your current or future educational programs. As usual, we expect to have hundreds of participants from dozens of countries, which provides a great opportunity for networking and social learning. Cost: \$60.*

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