



**LEAVES, A Newsletter of the  
INTERNATIONAL  
ENVIRONMENT FORUM  
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**International Environment Forum** A Baha'i inspired organization addressing  
the environment and sustainable development

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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 climate change action. 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.

### **2014 United Nations SIDS Conference in APIA, Samoa**

The UN General Assembly has called for a third UN Conference on Small Island Developing States, to be held in Apia, Samoa, in 2014, with regional preparatory meetings in the Indian Ocean, Caribbean and Pacific in June and July 2013. A number of IEF members are from SIDS or have lived there for many years, so we may be able to make constructive contributions to the preparatory process and the conference. **CALL TO ACTION: Interested IEF members please contact IEF President Arthur Dahl at [dahla@bluewin.ch](mailto:dahla@bluewin.ch).**

### **American Bahá'í Community Encourages Climate Change Action**

Every year for the past three years, the national Baha'i administrative body in the United States has written to the American Baha'i community about the broad interfaith effort on climate change in collaboration with the United Nations, including the [Baha'i International Community's Seven Year Plan of Action on Climate Change](#). They have recommended thoughtful study of the problem and encouraged participation in efforts to respond to growing concerns about it that reflect Baha'i teachings on environmental stewardship and justice. This year they have highlighted two events to enhance understanding of the problem: (1) the Wilmette Institute course on **Scientific and Spiritual Dimensions of Climate Change** based on the [IEF course](#), and (2) the **National Preach-in on Global Warming** (8-10 February 2013) sponsored by Interfaith Power and Light. Because the Wilmette Institute course starting 1 February is already full, a second course will be offered from 5 May to 23 June 2013. They encouraged Baha'i efforts to raise public awareness of the problem and to undertake related acts of service in their own localities.

## Wilmette Institute Offers Repeat of Climate Change Course

The Wilmette Institute on-line learning course on "Scientific and Spiritual Dimensions of Climate Change" which started 1 February for seven weeks was oversubscribed, with more than 60 participants. The Wilmette Institute has therefore decided to offer a repeat of the course from 5 May to 23 June 2013. The course was developed by Christine Muller, and other faculty members are Carole Flood, Karryn Olson-Ramanujan, and Arthur Dahl, all IEF members. It is based on the similar inter-faith course for local group use which is available on the IEF web site (<http://iefworld.org/ssdcc0.html>).

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# Climate Change

## Classroom Page



*"Be anxiously concerned with the needs of the age ye live in,  
and center your deliberations on its exigencies and requirements."*  
 Bahá'u'lláh

Many people are already suffering from the devastating impacts of climate change such as increased water scarcity, more severe storms, floods, droughts, famines, malnutrition, diseases, and dislocation from their homes. The threat of climate change to our children and grandchildren is immense and its long term consequences are unprecedented in human history.

Climate change is not just an environmental issue. It has far-reaching implications for our efforts to relieve poverty, to establish and maintain peace, and for the economy. It is no exaggeration to say that the future of human civilization is at risk because we are destroying the foundation for life on this planet.

ACTIVITIES

- ? Choices
- 📖 Forums
- 📝 Quizzes
- 📄 Resources

SCHEDULE OF COURSE UNITS,  
WITH DIRECT LINKS

- 1: Introduction to the Course and to Moodle (Feb. 1-4)
- 2: Nature and Humankind (Feb. 5-11)
- 3: Science of Climate Change (Feb. 12-18)
- 4: Impacts of Climate Change (Feb. 19-25)
- 5: Mitigating Climate Change (Feb. 26-Mar. 4)
- 6: Spiritual and Ethical Dimensions of Climate Change (March 5-11)
- 7: A Challenge to All of Us (March 12-18)
- 8: Summary and Integration of Learning

### VIDEO HOME

<http://www.youtube.com/watch?v=jqxENMKaeCU>



**From Wikipedia:** *Home* is a 2009 documentary by Yann Arthus-Bertrand. The film is almost entirely composed of aerial shots of various places on Earth. It shows the diversity of life on Earth and how humanity is threatening the ecological balance of the planet. The movie was released simultaneously on June 5, 2009 in cinemas across the globe, on DVD, Blu-ray, television, and on YouTube, opening in 181 countries. Home had it's World Festival Premier at the Dawn Breakers International Film Festival in 2012.<sup>[1]</sup> The film was financed by PPR, a French multinational holding company specializing in retail shops and luxury brands, as part

of their PR strategy

The documentary chronicles the present day state of the Earth, its climate and how we as the dominant species have long-term repercussions on its future. A theme expressed throughout the documentary is that of linkage—how all organisms and the Earth are linked in a "delicate but crucial" natural balance with each other, and how no organism can be self-sufficient.

**From the *Home* transcript—Intro:** Listen to me, please. You're like me, a homo sapiens, a wise human. Life, a miracle in the universe, appeared around 4 billion years ago. And we humans only 200,000 years ago. Yet we have succeeded in disrupting the balance so essential to life. Listen carefully to this extraordinary story, which is yours, and decide what you want to do with it.....

**From the *Home* transcript—Closing:** Everything on Earth is linked, and the Earth is linked to the sun, its original energy source. Can humans not imitate plants and capture its energy? In one hour, the sun gives the Earth the same amount of energy as that consumed by all humanity in one year. As long as the Earth exists, the sun's energy will be inexhaustible. All we have to do is stop drilling the Earth and start looking to the sky. All we have to do is learn to cultivate the sun. All these experiments are only examples, but they testify to a new awareness. They lay down markers for a new human adventure based on moderation, intelligence and sharing. It's time to come together. What's important is not what's gone, but what remains. We still have half the world's forests, thousands of rivers, lakes and glaciers, and thousands of thriving species. We know that the solutions are there today. We all have the power to change. So what are we waiting for?

You can find the transcript for *Home* at <http://www.apronus.com/internet/home-movie-transcript.pdf>

## CIIS Offers New Graduate Program in Ecology, Spirituality, and Religion

In fall 2013, California Institute of Integral Studies (CIIS) will launch a new graduate program in Ecology, Spirituality, and Religion. The program is housed in the Institute's Philosophy and Religion Department, and will offer both MA and PhD degrees. [CIIS is now accepting applications for the fall 2013 semester.](#)

The ecological challenges of the 21st century represent a crisis of values and consciousness. The twin threats of climate change and biodiversity loss are among the greatest existential threats humanity has seen. Graduate study in Ecology, Spirituality, and Religion allows students to cultivate the knowledge and wisdom to respond to the ecological crisis from integral and transdisciplinary perspectives. Students gain skills and insight to transform practices, worldviews, and consciousness in the service of a more just and flourishing planetary future.

### The program's uniquely integrated curriculum explores such questions as:

- What are the roles of religion, spirituality, and culture in the ecological crises of our time?
- What ecological insights do the world's religious heritages offer?
- How can exploring worldviews help us to understand and address ecological trauma?

### Ecology, Spirituality, and Religion MA

The MA in Ecology, Spirituality, and Religion emphasizes an embodied, engaged approach, in which contemplative practice and career exploration complement rigorous study. Students are at the forefront of a rapidly emerging interdisciplinary field devoted to ecological healing and resilience. Graduates will be well prepared to engage environmental issues in multiple spheres, or to pursue doctoral-level study.

### Ecology, Spirituality, and Religion PhD

PhD students investigate and analyze the role of worldviews, philosophies, and religions in generating and responding to global challenges. Doctoral students wishing to specialize in Ecology, Spirituality, and Religion should possess a master's degree in a discipline relevant to the program (e.g., religion, ecology, biology, environmental studies, environmental history, geography, anthropology, literature, or philosophy) from an accredited graduate institution.

Core Faculty Core faculty are at the forefront of the dialogue linking spiritual and cosmological with ecology and sustainability. Faculty include: [Elizabeth Allison](#), [Robert McDermott](#), [Jacob Sherman](#), and [Brian Swimme](#).

For more information, visit the program's website [www.ciis.edu](http://www.ciis.edu). To speak with an admissions counselor or to apply, email [dtownes@ciis.edu](mailto:dtownes@ciis.edu), or call 415.575.6164.

## E-Discussion – Environmental Sustainability for the World We Want



ENVIRONMENTAL SUSTAINABILITY



[Join the e-discussion: 4 February - 1 March](#)

[Environmental Sustainability for the World We Want: Moving From the MDGs to Post-2015](#)

The UN System Task Team on the Post-2015 UN Development Agenda has proposed that environmental sustainability be one of the four core dimensions in a post-2015 development agenda, along with inclusive social development, inclusive economic development, and peace and security. Based on this and the outcomes of Rio+20, there is growing consensus that the post-2015 development agenda will need to apply an integrated approach that includes environmental sustainability as a central component if we are to achieve the future we want.

You are cordially invited to join us in this e-discussion [“Environmental Sustainability for the World We Want: Moving From the MDGs to Post-2015”](#), and help to define how best to reflect environmental sustainability in the post-2015 agenda.

This e-discussion is part of the first phase of the global thematic consultation on environmental sustainability which aims to look broadly at what we have learned from the Millennium Development Goals and to bring forward new thinking and experiences related to integrated approaches that link economic, social and environmental sustainability and touch on cross-cutting issues such as gender equality, human rights, young people, inequalities and the partnerships necessary to make progress. Building upon the [90 discussion notes](#) that have been received, this first e-discussion provides an additional opportunity for people from around the world to help frame the priorities for the dialogue moving forward. The discussion will address the questions outlined below.

We invite you to participate in your preferred language, to share your views, experiences and questions with citizens from all over the world.

We encourage you to review the [Framing Paper](#) for background information to help in thinking about the following questions that will be discussed over the next four weeks:

### **Week 1: Capitalizing on the Millennium Development Goals (MDGs) and MDG7 Achievements and Addressing the Gaps**

1. How and to what extent can we build on lessons learned from MDG7's achievement in developing our post-2015 development agenda?
2. How can the post-2015 agenda address any gaps related to environmental sustainability in the overall MDG framework?

### **Week 2: Addressing Development Challenges in a Changing World**

1. Which global trends and uncertainties may influence how environmental sustainability is framed in the international development agenda over the next 10-30 years?
2. What new elements and considerations would need to be incorporated into the post-2015 agenda for it to be environmentally sustainable and adequately capture the essence of the world's evolving development/financial/social/ economic/ environmental/etc challenges?

### Week 3: Framing Environmental Sustainability in the Post-2015 Agenda

1. In the spirit of the outcomes of Rio+20, what are the barriers and enablers to gradually moving towards environmental sustainability?
2. Building on the MDGs and the outcomes of Rio+20, how would you envisage a conceptual framework for the post-2015 agenda that can help drive a transition to an environmentally sustainable future? What are the key characteristics?

### Week 4: Consensus and Divergence

1. What are the topic areas where a consensus is evolving and where further dialogue is needed?

## “Our fossil fuel addiction and climate change” IEF website blog post by Arthur Dahl

I was recently asked about the relationship between climate change and highly political issues around fossil fuels and energy independence. This raises an important issue about the linkages between all the different processes that make up our economy and human-planetary system, none of which can be resolved in isolation. Can we treat the scientific parts of the problem separately from the economic and political parts? How far can participation in dialogue go before it becomes too political and divisive?

Given the recent research on political mindsets and values and how they selectively filter what information we trust and believe, the answers are not obvious. Without a spirit of the independent investigation of truth, a rational dialogue is not possible. In these circumstances, it's probably best to address the levels of scientific evidence and spiritual principle, without explicit reference to particular projects, companies or individuals. However I do think that it is important to emphasize the linkages between different issues like energy sources and climate change, as addressing one is essential to solving the other.

I recently came across Bill McKibbin's excellent article in *Rolling Stone* of 2 August 2012 entitled "**Global Warming's Terrifying New Math**". He first shows that, while the 2°C (3.6°F) global warming limit generally agreed by scientists and governments is in fact too high and leading to a long-term disaster, political realism has bested even these scientific data. To stay within that limit, the best scientific consensus is that we can only emit 565 more gigatons of carbon dioxide by mid-century. Emissions in 2011 were 31.6 gigatons and are growing by 3% per year, so we are heading for 6°C (almost 11°F) of warming (the recent [World Bank report](#) is conservative at 4°C). He then shows what I have long suspected that existing fossil fuel reserves that companies/countries already plan to exploit amount to

2,795 gigatons of carbon emissions, not counting unconventional resources like shale gas. These reserves are already capitalized in these companies' market value. This is five times the emissions limit for 2°C of warming, and if all these proven reserves are exploited as planned, climate catastrophe is inevitable. With remarkable prescience (last August, before hurricane Sandy in October), McKibbin even hypothesizes that only a giant hurricane swamping Manhattan, or a megadrought wiping out Midwest agriculture, might overcome the political power of the industry to resist regulation. The only solution to climate change is to leave that carbon in the ground, but that would wipe out 80% of the market value of the companies and the economies of fossil fuel producing countries. Talk about an irresistible force versus an unmovable object...

In this context, the more we invest in the fossil fuel industry, the less can be invested in renewable energy technologies and energy efficiency, and the more painful the transition will ultimately be, particularly in countries like America so committed to an unsustainable lifestyle. This is the logic of the Canada/US pipeline controversy. Anything that makes money now is good, and free enterprise will find a technological fix for any future problem, as the industrialists put it. The easy money is in fossil fuels, and climate change is an externality. Yet a recent study led by a Stanford engineer showed that the USA could replace 100% of fossil fuel use in 20-40 years using existing renewable technologies (without nuclear, carbon capture or biofuels), with such solutions as electric/fuel cell vehicles and large-scale energy grids to even out supply and demand (Mark Z. Jacobson and Msrk DeLucchi. 2009 project to evaluate cost, feasibility and environmental impact of renewable energy sources and technologies, *Stanford* magazine, July/August 2012, p. 32). The problem is not technical or scientific, but economic and political. What is lacking in the debate is

reasonably positive alternatives that might eventually win out over vested interests in the present system.

At times, I try to imagine what would be left of the economy if we eliminate everything contrary to the Baha'i vision of future society: alcohol (the second highest contributor to mortality globally, according to WHO), drugs, tobacco, weapons and military equipment, luxury goods, planned obsolescence, fossil fuels and the automobile/truck/ship/plane transport system as we know it, fuel-intensive agriculture and unhealthy foods/drinks, most advertising and frivolous or corrupting entertainment, etc. This is a large share of any modern economy. The transition in terms of finding alternatives for economic wealth creation and employment is almost unimaginable, yet it needs to be imagined.

Personally, I think that the only thing that has a chance to save us from disastrous climate change would be a rapid collapse of the financial system halting most international trade and triggering the failure of the consumer economy. The potential human cost of such an event needs to be anticipated, and our resilience increased. Peter Turchin, a mathematical ecologist modeling the rise and fall of civilizations, predicted last year that political instability would lead to major crisis in the USA by 2020 (Turchin, Peter, *Nature*, vol. 463, p. 608; cited in Holmes, Bob, 2012, *Revolutionary Cycles*, *New Scientist*, 18 August 2012, p. 46-49). The more people work at the local level to build a community spirit of solidarity and mutual collaboration in solving local problems, educating children and youth, and learning to share together at a spiritual as well as material level (what Baha'is call the core activities), the better protected they will be in such a scenario.

More generally, an economy based on growth, even if artificially maintained by borrowing, has created general expectations of things always getting materially better, salaries always rising, new technologies allowing us to do more. No one likes to hear bad news, and sacrifice is unpopular. The rich are still getting richer; it is just everyone else that is suffering. Most environmental messages fail because they are negative.

The heart of a more constructive Baha'i-inspired approach should be to emphasize the beauty and desirability of lifestyles based on spiritual principles and strong communities, meeting basic needs for everyone but avoiding excesses, and learning detachment from the consumer society around us in favor of higher and better things. We should try to set an example in our material lifestyle where conditions allow, but not feel guilty when we are trapped in a civilization now being rolled up. We should, however, use our knowledge of what must change to reduce our vulnerability to the fundamental transformations that have to come sooner or later.

I do think that it is essential to link the climate change and energy issues. Western consumer societies are addicted to fossil fuels (as is the Chinese economy, among others), but reducing foreign energy dependence through investment in renewable technologies at home should be the priority, not short-term fixes like mining tar sands and fracking for shale gas that make money immediately but add to long-term problems. For most well-to-do people, energy use per capita is excessive and unnecessary, and this also needs to be addressed through lifestyle changes that everyone can consider.

**BOOK REVIEW by Arthur Lyon Dahl-- Bankrupting Nature: Denying our planetary boundaries.  
A report to the Club of Rome. Anders Wijkman and Johan Rockström.  
London: Earthscan from Routledge, 2012. 206 p.**

Anders Wijkman, a former politician and international official, Co-President of the Club of Rome, and Johan Rockström, the scientist who led the groundbreaking study of planetary boundaries, have combined their perspectives to provide a comprehensive but accessible overview of where we are and where we seem to be going with respect to planetary sustainability. The result is sobering, like being told you have spent your inheritance and have nothing left in the bank.

Forty years ago, the first Report to the Club of Rome, "The Limits to Growth", created intense controversy by questioning the assumption of endless growth behind conventional economic thinking. This book returns to the same theme, not with computer modeling but with an integrated systems perspective and logical analysis of the implications of what science is saying about our treatment of the natural resources and planetary systems on which our economy and even survival depend.

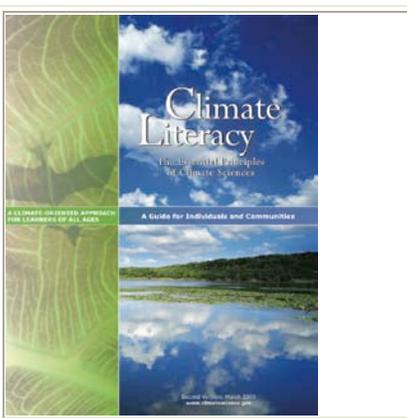
I published a book review of "The Limits to Growth" when it was published in 1972, and this book resembles closely many lectures I have given on the state of the planet over the years. As the authors put it: "The primary purpose of this book is to clarify the relationship between the economic system and nature."

Its scope is very broad. While it gives major attention to energy and climate change, including a detailed analysis and rebuttal of the views of climate change deniers, it shows that this is only one of the interrelated environmental problems that could lead to planetary bankruptcy and collapse. "Unless we start using resources more efficiently and equitably, we will face the consequences: constraints on resources leading to tensions and armed conflicts; and the death of several billion people from starvation."

There is also a well-researched critique of the present economic and financial systems that risk driving us over the brink in the near future. A rational assessment shows that gradual change or tinkering with the system are not options. We have missed past opportunities, and it is not obvious today how to reconcile the urgency of responding to climate change, the vulnerability of our food production and trade systems, and the rising costs of energy and natural resources as demand outstrips supply. We have reached the limits of endless growth on a finite planet, as predicted 40 years ago.

The book is not totally negative. It explores many proposals for reform such as replacing GDP as a measure of progress, recognizing the value of natural capital and ecosystem services, promoting a circular economy, fixing binding targets for energy and resource efficiency, taxing resource use rather than labour, scrapping quarterly corporate reporting, rethinking compensation schemes in financial institutions, and requiring banks to report risk exposure in high carbon investments. It calls for a reconsideration of business models, strategies for planetary stewardship and global governance, and bottom-up solutions where communities successfully manage for sustainability.

Wijkman and Rockström have produced a useful and timely synthesis of much of the creative new thinking about the necessary global transition. It is realistic about the difficulties involved and the strong forces of resistance in society, particularly in economic and political circles, but it demonstrates very clearly that there is today no reasonable option. "What is needed is nothing less than a revolution, both in attitudes and in social and economic organization." The one thing I would add is that such a revolution must be founded on new spiritual principles and values if it is to motivate people to make the necessary changes before it is too late.



<http://www.climate-science.gov/Library/Literacy/>

"The Essential Principles of Climate Science" presents important information for individuals and communities to understand Earth's climate, impacts of climate change, and approaches for adapting and mitigating change. Principles in the guide can serve as discussion starters or launching points for scientific inquiry. The guide can also serve educators who teach climate science as part of their science curricula.

Development of the guide began at a workshop sponsored by the National Oceanic and Atmospheric Administration (NOAA) and the American Association for the Advancement of Science (AAAS). Multiple science agencies, non-governmental organizations, and numerous individuals also contributed through extensive review and comment periods. Discussion at the National Science Foundation (NSF) and NOAA-sponsored Atmospheric Sciences and Climate Literacy workshop contributed substantially to the refinement of the document.

**For further information** regarding the Climate Literacy document, please contact Frank Niepold at [frank.niepold@noaa.gov](mailto:frank.niepold@noaa.gov). Please include "Climate Literacy info" in the subject line.

**earth**  
THE OPERATORS' MANUAL

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An operator's manual helps keep your car or computer running at peak performance. Earth science can do the same for the planet. To illustrate the evidence and the way forward, host Richard Alley, takes viewers on a High-Definition trip around the globe, from New Zealand to New Orleans, telling the story of Earth's climate history and our relationship with fossil fuels.

In New Zealand, we go deep into a crevasse in the Franz Josef Glacier to understand how the advance and retreat of massive glaciers during Earth's Ice Ages is tied to changing levels of carbon dioxide. In Denver, Colorado, we peer over Alley's shoulder at the National Ice Core Lab to see how records of temperature and atmospheric composition trapped inside chunks of ancient ice conclusively demonstrate that today's levels of CO<sub>2</sub> are higher than at any time in the past 400,000 years, due largely to our burning of fossil fuels over the past several hundred years. And we see why the Pentagon now believes that climate change is real and how responding to those challenges is part of the military's future strategic objectives.

Then it's on to locations where developments in sustainable energy, and a diverse cast of inspiring Earth "operators," are already proving it's possible to do things differently. A solar power plant near Seville, Spain, provides electricity to 200,000 homes – promising news for the sunniest place in the world, the deserts of the U.S. Southwest, where solar energy could provide for 80% of Earth's current use. On the North Island of New Zealand, a geothermal generating station is a reliable source of carbon-free energy. Next up, Brazil, a land of cars running on flex fuels using sugarcane ethanol; then it's on to the gas-guzzling city of Houston, which under the leadership of Mayor Annise Parker is working to support e-vehicles and get fifty percent of its power from wind by 2030. In a fascinating and surprising segment filmed at the Army's Fort Irwin and the Marine Corps' Camp Pendleton, members of the U.S. military explain why they have made it a priority to significantly reduce reliance on fossil fuels. And in Xi'an, Shanghai and Beijing, we see how China, the world's largest energy consumer, is evolving from "the factory of the world" into "the clean-tech laboratory of the world," in the words of Peggy Liu, chairperson of the Joint U.S.-China Collaboration on Clean Energy.

This special dispenses with controversy, partisan debates and political stalemates and focuses on the beauty and bounty of the planet, human ingenuity, and the many reasons to be optimistic about our future. As Alley says, if enough of us get involved, "we can avoid climate catastrophes, improve energy security, and make millions of good jobs."