

Towards a Coalition for Action to improve social acceptance

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Typical myths/questions

Photovoltaic panel consumes more energy than it produces.



Solar manufacturers are bankrupting and there is no future in this industry.

Bioenergy increases greenhouse gas emissions.



Biofuel contributes to rising food prices as well as impacting biodiversity.

Geothermal projects may cause earthquakes and damage to drinking water and hot springs.



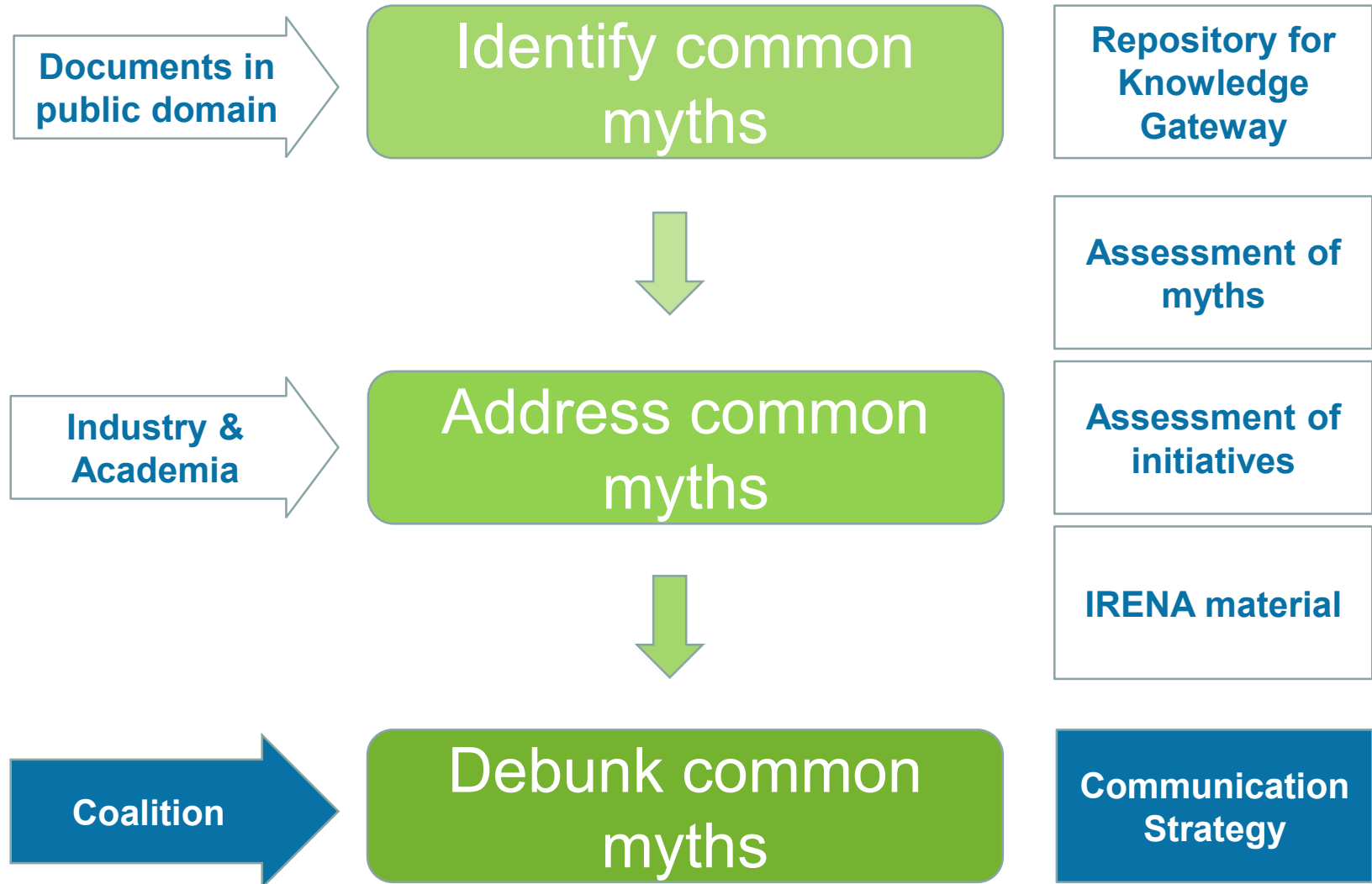
Geothermal energy is only applicable in very limited areas far from consumers.

Wind farms kill birds and bats.



Wind energy requires backup and doesn't reduce oil dependency.

Project approach



Existing materials

ENERGY FACT CHECK

a resource of the American Council On Renewable Energy (ACORE)

THE FACT CHECK | ENERGY ISSUES | ENERGY LIBRARY | ENERGY CONTACTS | ABOUT US

FACT CHECK

CLAIM: With cheap, abundant natural gas and coal, expensive renewables are unnecessary. Utilities should stick with these fuels instead of having to deploy new, more expensive renewable resources.

FACT: Natural gas costs have a history of high volatility while renewable prices are continuing to decrease, allowing for long-term pricing. The prices of renewable energy resources are already starting to beat coal prices and utilities are trading coal for renewables across the country. [Click here to get the facts.](#)

Search

Like 641 | Tweet 549 | Retweet 37

Energy Fact Check 16 hours ago
Fossil fuel—the only way to power our grid, duh! NOT if you want a cheaper, cleaner, and more reliable grid by 2030!
<http://t.cn/ylwU5HCUI>

Reply | Retweet | Favorite

Auf den ersten Blick: **„Wir können uns die Erneuerbaren Energien nicht leisten.“**

P A N O R A M A

WWF se propone acabar con los mitos contra las renovables

Aumentar la sensibilidad ciudadana hacia las renovables y que sean vistas como una alternativa real y viable. Es el objetivo del Proyecto "Renovables: Mitos y realidades sobre las Energías Renovables", que WWF ha puesto en marcha con el apoyo de la Oficina Española del Cambio Climático, del Ministerio de Medio Ambiente (MAMC).

Principales impactos ambientales de las energías renovables

- Las energías renovables son fuentes de energía limpias y sostenibles. Sin embargo, como todo tipo de actividad humana, también tienen algunos impactos ambientales.
- Los impactos ambientales de las energías renovables varían según el tipo de tecnología utilizada y el lugar donde se instalan.
- Los impactos ambientales de las energías renovables pueden ser mitigados mediante medidas adecuadas.

Impactos ambientales de las energías renovables

- Las energías renovables pueden tener impactos ambientales durante su ciclo de vida, desde la fabricación de los componentes hasta la instalación y el mantenimiento.
- Los impactos ambientales de las energías renovables pueden ser mitigados mediante medidas adecuadas.

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PV FAQs

What is the energy payback for PV?

Producing electricity with photovoltaics (PV) uses no petroleum, produces no greenhouse gases, and uses no finite fossil-fuel resources. The environmental benefits of PV are great. But just as we say that it takes money to make money, it also takes energy to use energy. The term "energy payback" captures this idea. How long does a PV system have to operate to recover the energy—and associated generation of pollution and CO₂—that went into making the system, in the first place?

Energy payback estimates for monocrystalline silicon PV systems are 1.5, 2.0, 3.0, and 3.5 years for systems using current monocrystalline silicon PV modules, 3 years for current thin-film modules, 2 years for anticipated multijunction modules, and 1 year for anticipated thin-film silicon (TF-Si).

With energy paybacks of 1 to 4 years and annualized environmental benefits of 4 to 6 times the energy that PV systems generate will be displaced by petroleum, gas, coal, and depletion of resources.

Based on a model and our data, the idea that PV cannot pay for its energy involves a simply a myth. Indeed, monocrystalline silicon and thin-film silicon-based PV systems deliver and fossil-fuel energy production have smaller energy payback periods (including net air mixing, transportation, siting, and operation).

What is the Energy Payback for Crystalline-Silicon PV Systems?

Most solar cells and modules sold today are crystalline silicon. Both single-crystal and multijunction silicon solar cells produce the most energy per unit area, processing the silicon into wafers of several inches. Purifying and crystallizing the silicon are the most energy-intensive parts of the silicon manufacturing process. Other aspects of silicon-cell and module production that add to the energy input include cutting the silicon into cells, processing the silicon into wafers, assembling the cells into modules (including encapsulation, and metal energy use for the manufacturing facilities).

Today's PV industry generally overestimates any of several types of "add-backs" shown from the manufacturing industry and estimates for the energy used to purify and crystallize silicon (see module footnotes of these tables). Energy payback calculations are not straightforward. Using the PV industry figures to make up our own silicon, which could do so the near future, calculating payback for crystalline PV requires that we make certain assumptions:

- Use of Department of Energy Energy Efficiency and Renewable Energy Energy payback program tables when energy is used, mined, refined, or transported.

Wir können es uns nicht leisten, auf Erneuerbare Energien zu verzichten.

Die Ressourcen der meisten fossilen Energieträger reichen nur noch wenige Jahrzehnte.

Uran, Erdöl, Erdgas, Steinkohle

Erneuerbare Energien sind unerschöpflich und kostenlos.

Die Erzeugung erneuerbarer Energien ist heute billiger als die Erzeugung fossiler Energien.

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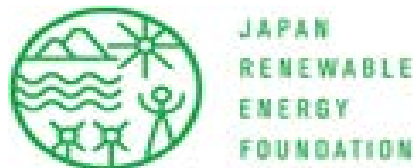
Erneuerbare Energien sind unerschöpflich und kostenlos.

Die Erzeugung erneuerbarer Energien ist heute billiger als die Erzeugung fossiler Energien.

10 common concerns

1. RE has also diverse **environmental impacts**.
2. RE technologies are **too expensive**.
3. RE is **intermittent and limited in applicable locations**.
4. RE causes **health and safety problems**.
5. **Other resources are more viable** to solve energy problems.
6. RE **creates few jobs and/or economic benefits**.
7. RE **destroys landscape and damages local communities**.
8. RE technologies are still **immature**.
9. RE causes **indirect externalities**, e.g. food crisis, earthquakes.
10. RE **consumes more energy than it produces**.

Questionnaire - 14 partners



- **Avoid reinforcing** myths 
- Focus on facts on **benefits and advantages**
- Core facts should be presented **visually**
- Target the **undecided majority** rather than the unswayable minority
- Publish arguments **according to level of audience**
- Engage **specialised media and opinion leaders** in briefings and dialogue
- Proactively participate in **public debates**

Learning from other campaigns



Takeaways from success

1

Form a **coalition** with clear branding, celebrities and engagement of other sectors

2

Combine provocative messages with **hard facts and humours.**

3

Let youths debunk myths and spread good news through social media, not relying only on experts.

4

Mobilise citizens and provide choices for them to take their own purchasing decisions as consumer actions.

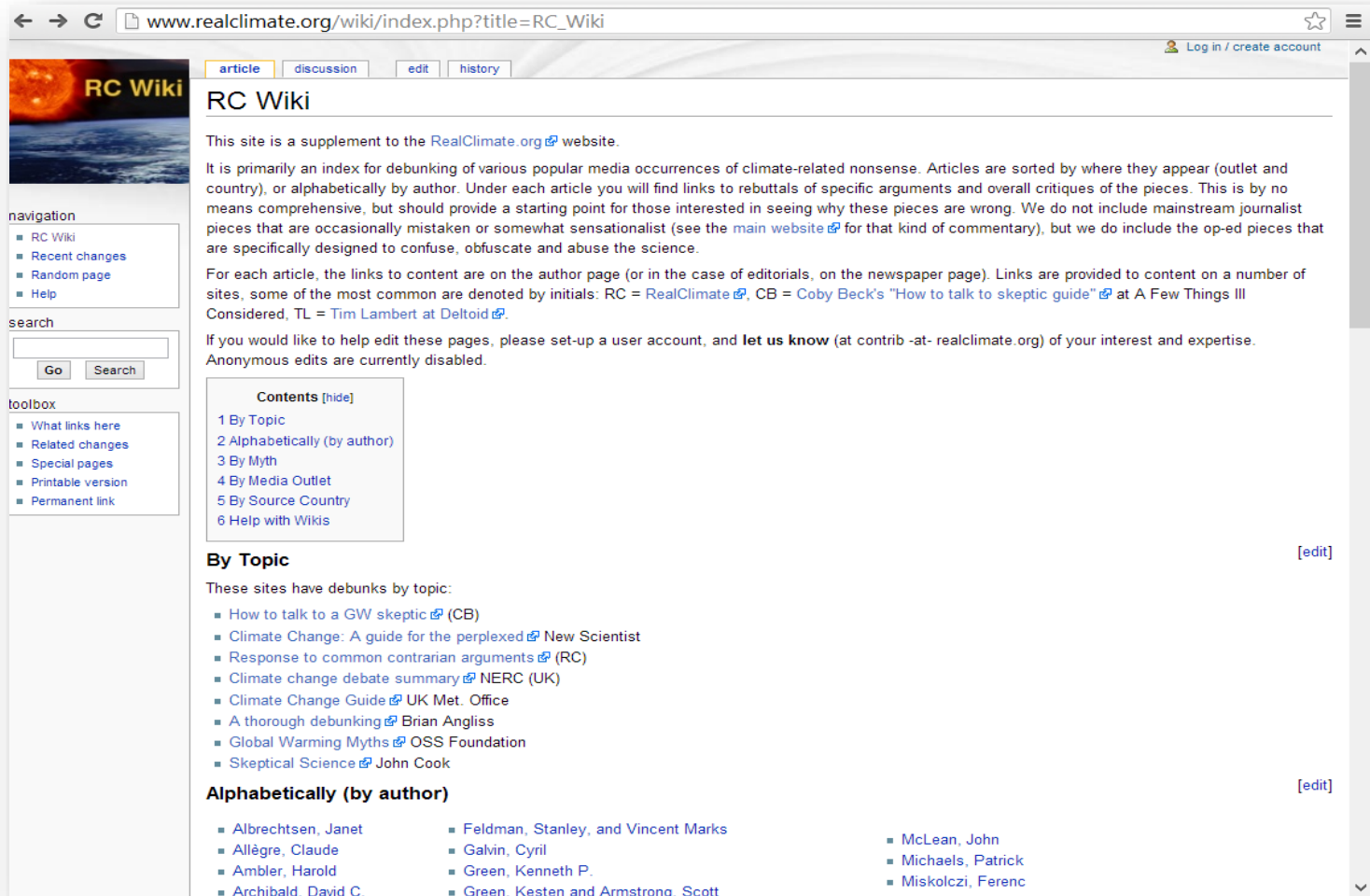
5

Engage/praise sympathetic **media, governments and politicians** and use their channels for advocacy.

- Are we adding another “Q&A material”? ... Need to be innovative to make impact for the whole sector by building a **“Coalition for Action”**
- Difficult to address all target groups with limited time and resources ... As the first step, focus on network with **communication officers**, **journalists** and **opinion leaders**
- Consider an attractive medium to get attention from the target audience ... use of **online tools**
- **Multi-lingual provisions** should be considered.

Proposal for joint activities

- **Knowledge** ... Develop a knowledge base where robust evidence/arguments are collected and made available.
- **Communications** ... Develop common materials (poster, App, video, etc.) through a network of communication officers.
- **Campaign** ... Carry out a global advocacy through diverse communication channels.
- **Media** ... Collective responses and advice/training
- **Engagement** ... Dialogue with parliamentarians, opinion leaders, concerned groups, etc.



The screenshot shows a web browser window displaying the Real Climate Wiki index page. The address bar shows the URL: www.realclimate.org/wiki/index.php?title=RC_Wiki. The page has a navigation menu with options: article, discussion, edit, and history. The main content area is titled "RC Wiki" and contains the following text:

This site is a supplement to the RealClimate.org website.

It is primarily an index for debunking of various popular media occurrences of climate-related nonsense. Articles are sorted by where they appear (outlet and country), or alphabetically by author. Under each article you will find links to rebuttals of specific arguments and overall critiques of the pieces. This is by no means comprehensive, but should provide a starting point for those interested in seeing why these pieces are wrong. We do not include mainstream journalist pieces that are occasionally mistaken or somewhat sensationalist (see the [main website](#) for that kind of commentary), but we do include the op-ed pieces that are specifically designed to confuse, obfuscate and abuse the science.

For each article, the links to content are on the author page (or in the case of editorials, on the newspaper page). Links are provided to content on a number of sites, some of the most common are denoted by initials: RC = [RealClimate](#), CB = [Coby Beck's "How to talk to skeptic guide"](#) at A Few Things Ill Considered, TL = [Tim Lambert at Deltoid](#).

If you would like to help edit these pages, please set-up a user account, and **let us know** (at contrib-at-realclimate.org) of your interest and expertise. Anonymous edits are currently disabled.

Contents [hide]

- 1 By Topic
- 2 Alphabetically (by author)
- 3 By Myth
- 4 By Media Outlet
- 5 By Source Country
- 6 Help with Wikis

By Topic [edit]

These sites have debunks by topic:

- [How to talk to a GW skeptic](#) (CB)
- [Climate Change: A guide for the perplexed](#) [New Scientist](#)
- [Response to common contrarian arguments](#) (RC)
- [Climate change debate summary](#) [NERC \(UK\)](#)
- [Climate Change Guide](#) [UK Met. Office](#)
- [A thorough debunking](#) [Brian Angliss](#)
- [Global Warming Myths](#) [OSS Foundation](#)
- [Skeptical Science](#) [John Cook](#)

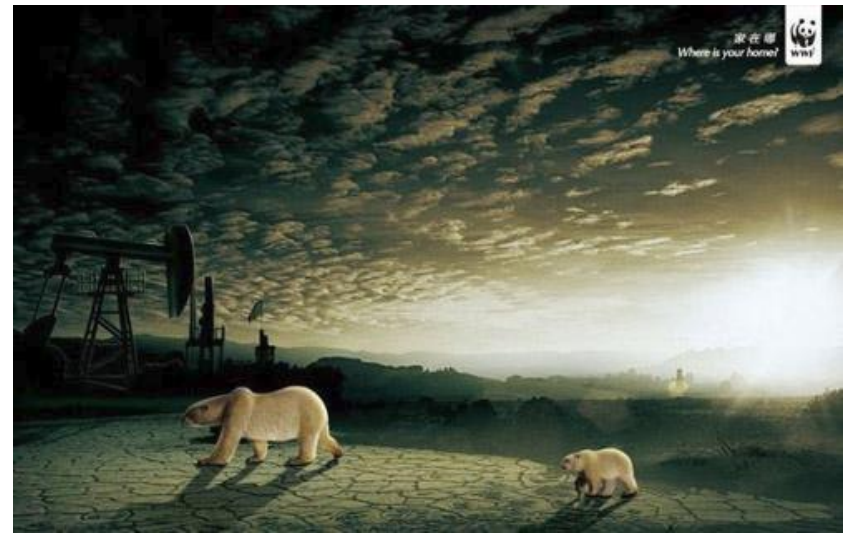
Alphabetically (by author) [edit]

■ Albrechtsen, Janet	■ Feldman, Stanley, and Vincent Marks	■ McLean, John
■ Allègre, Claude	■ Galvin, Cyril	■ Michaels, Patrick
■ Ambler, Harold	■ Green, Kenneth P.	■ Miskolczi, Ferenc
■ Archibald, David C.	■ Green, Kesten and Armstrong, Scott	

Real Climate Wiki for debunking climate myths

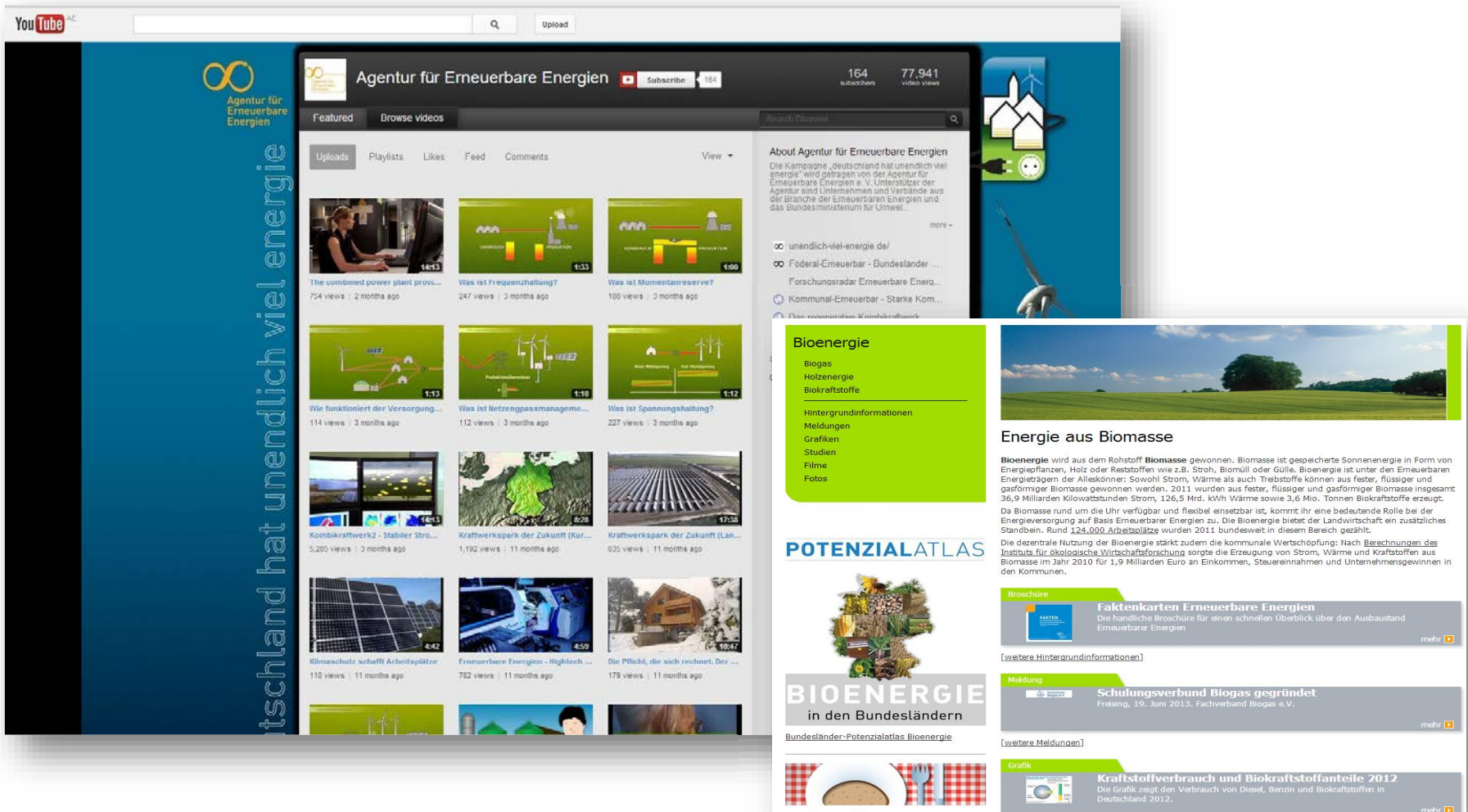
www.realclimate.org/wiki/index.php?title=RC_Wiki

Posters



WWF's campaign posters

Common materials



The image shows a YouTube channel page for 'Agentur für Erneuerbare Energien' and a website for 'Bioenergie in den Bundesländern'. The YouTube page features a grid of video thumbnails with titles such as 'The combined power plant prov...', 'Was ist Frequenzhaltung?', 'Was ist Momentanreserve?', 'Wie funktioniert die Versorgung...', 'Was ist Netzengpassmanagem...', 'Was ist Spannungshaltung?', 'Kombikraftwerk2 - Stabiler 30...', 'Kraftwerkspark der Zukunft (Kur...', 'Kraftwerkspark der Zukunft (Lan...', 'Klimaschutz schafft Arbeitsplätze', 'Erneuerbare Energien - Hightech ...', and 'Die Pflicht, die sich rechnet. Der ...'. The website for 'Bioenergie in den Bundesländern' includes sections for 'Bioenergie' (Biogas, Holzenergie, Biokraftstoffe), 'POTENZIALATLAS', 'Broschüre' (Faktenkarten Erneuerbare Energien), 'Meldung' (Schulungsverbund Biogas gegründet), and 'Grafik' (Kraftstoffverbrauch und Biokraftstoffanteile 2012).

Free communication materials developed by German RE Agency

www.unendlich-viel-energie.de; www.youtube.com/AgenturEE

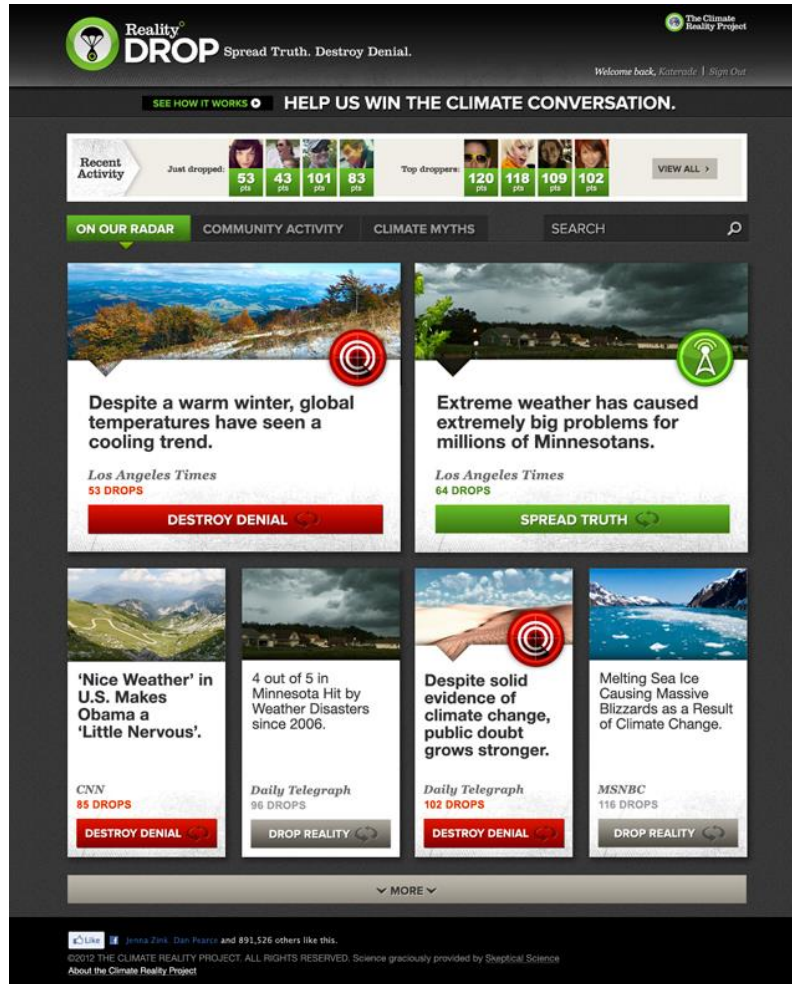
Global Wind Day: GWEC/EWEA IRENA International Renewable Energy Agency



Global Wind Day events and Facebook campaign

www.globalwindday.org

Dropping counter arguments



Reality DROP Spread Truth. Destroy Denial. The Climate Reality Project

Welcome back, Katherine | Sign Out

SEE HOW IT WORKS • **HELP US WIN THE CLIMATE CONVERSATION.**

Recent Activity

Just dropped: 53 pts, 43 pts, 101 pts, 83 pts

Top droppers: 120 pts, 118 pts, 109 pts, 102 pts

VIEW ALL >

ON OUR RADAR | COMMUNITY ACTIVITY | CLIMATE MYTHS | SEARCH

Despite a warm winter, global temperatures have seen a cooling trend.

Los Angeles Times
53 DROPS

DESTROY DENIAL

Extreme weather has caused extremely big problems for millions of Minnesotans.

Los Angeles Times
64 DROPS

SPREAD TRUTH

'Nice Weather' in U.S. Makes Obama a 'Little Nervous'.

CNN
85 DROPS

DESTROY DENIAL

4 out of 5 in Minnesota Hit by Weather Disasters since 2006.

Daily Telegraph
98 DROPS

DROP REALITY

Despite solid evidence of climate change, public doubt grows stronger.

Daily Telegraph
102 DROPS

DESTROY DENIAL

Melting Sea Ice Causing Massive Blizzards as a Result of Climate Change.

MSNBC
116 DROPS

DROP REALITY

MORE >

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About the Climate Reality Project



24 Hours of Reality THE DIRTY WEATHER REPORT

WATCH | SCHEDULE | ABOUT | ACT NOW

Ustream

Climate Reality: The Dirty Weather Report

TAKE THE PLEDGE | LIVE

- 1**

We search the day's news articles online and seek out the most **HEATED** climate change arguments wherever they're raging.


- 2**

We give you **EASY ACCESS** to the most accurate, relevant climate science.

SCIENCE SAYS:

Even during a long-term warming period, there are short cooling periods. Short-term cooling over the years is due to a strong La Niña phase in the Pacific Ocean and a prolonged solar minimum.
- 3**

Then, you grab that science, put it in your own words, and paste it into comment streams in the article — and help **COOL THE ARGUMENT.**


- 4**

We'll also find stories that **ACCURATELY** reflect climate science and help you to share those, too.



“Reality Drop” and “24 Hours of Reality”

www.youtube.com/watch?feature=player_embedded&v=GvRhiKA7g0c

Mainstreaming Adaptation to Climate Change (MACC) Project



Climate Change Handbook for Caribbean Journalists

Climate Change Handbook for Caribbean Journalists

According to the United Nations Framework Convention on Climate Change (UNFCCC), the term climate change is used to define a change in climate that is attributable directly or indirectly to human activity that alters atmospheric composition (UNFCCC, 2002). Another definition regards climate change as any systematic change in the long-term statistics of climate elements (such as temperature, pressure, or wind) sustained over several decades or longer (see <http://www.irdss.sws.uiuc.edu>).

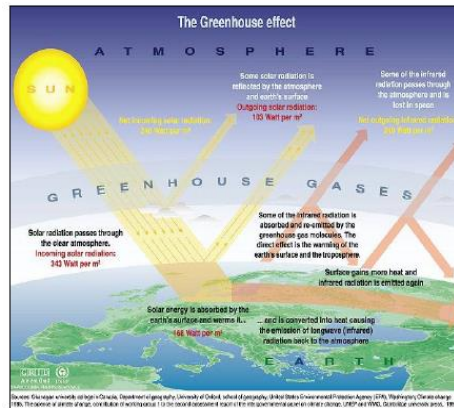


Figure 1: The Atmospheric Greenhouse Effect

The world's climate has always varied naturally. However the changes that have been noted in the last century have outpaced the natural variations, which occur over longer timescales. The majority of scientists now believe that current manifestations of global warming are the signals that climate change has begun. As expressed by a quotation in National Geographic magazine: 'The changes are happening largely out of sight. But they shouldn't be out of mind, because they are omens of what's in store for the rest of the planet.'

Climate Change Handbook for Caribbean Journalists



Figure 9: Hurricane Ivan's Disruption of Shoreline at Eastern End of Runway, NMIA
Source: Cowill Lyn, NEPA, Jamaica

6.9 Saint Lucia

Tropical cyclone activity and sea level rise pose major challenges for Saint Lucia. Increased beach erosion damage to coastal infrastructure and major coastal settlements could result from enhanced storm activity. Beach loss could damage key tourism infrastructure. Tourism contributes significantly to the Saint Lucian economy, so that dislocations would affect national economic growth.

Approximately 50 per cent of the total population lives in the Castries/Gros-Islet corridor, located along the northwestern coast of the island. Much of the capital, Castries, is built on low-lying reclaimed land, making the city centre prone to flooding during periods of heavy rain.

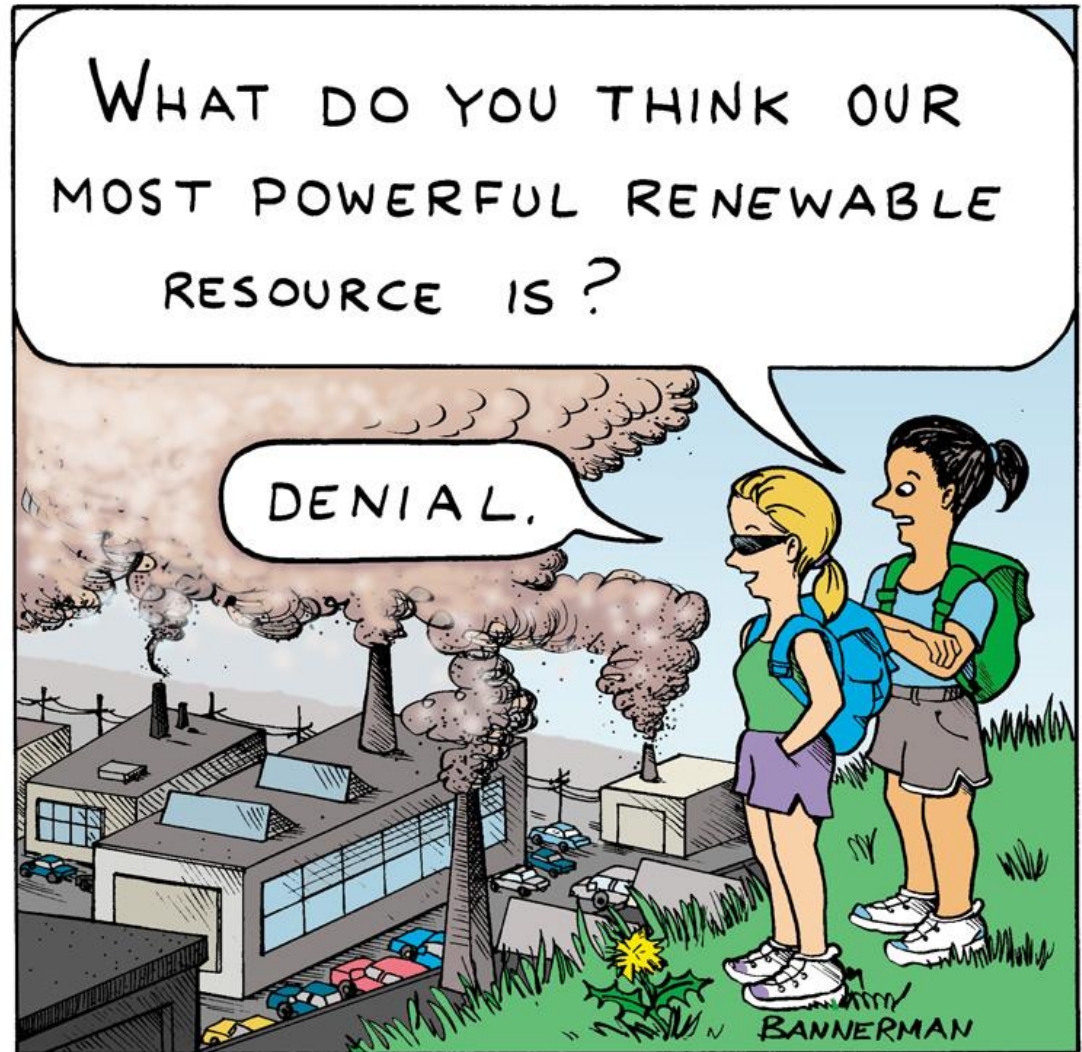
The agricultural sector could also be adversely affected by more intense climate extremes. Bananas, the principal crop, is sensitive to variations in rainfall and temperature. Projected decreases in rainfall and increased temperatures could increase heat stress and result in reduced yields.

Operational mode

- The membership is open, based on **agreement on principles** (joint statement)
- Hosted by IRENA but its operation should be **collectively developed and agreed** by members.
- A **steering committee** plans activities and consult members. The committee may consist of a representative(s) from each stakeholder group.
- IRENA will provide **an online platform** where members can discuss and share ideas/materials.
- Member may provide **financial contributions** to implement certain activities

Thank You!

tmachiba@irena.org



Source: Union of Concerned Scientists