

**What's Working**  
**MAHB Newsletter**  
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It appears humanity and our fellow travellers on this tiny sphere face an increasingly bleak and darkening future. The negative evidence of humankind's disastrous flirtation with a cornucopian fantasy mounts daily. Hope, in some respects, is as useless emotion as despair. What is required are actions, large and small, which will walk us purposefully back from the edge of the abyss, action propelled by the joyous rejoining of humanity to greater purpose, to the non-human community of which we are a part and to each other. In this issue, we explore "What's Working," offering encouraging glimpses of what is being accomplished, from market forces that have been unleashed with minimal government assistance to community-level efforts that can be replicated elsewhere. Despite the darkness of Earth's anthropogenic crises, these are examples through which all that is best in humanity shines: Mutual reliance, ingenuity and humanity, encouraging us all "Carry on! With love and joy in your hearts!"

In this end of the year newsletter we are focussing on "what's working" - and have unearthed examples of: [Human resilience](#), [Youth and grassroots movements](#), [Renewables and car-free cities](#), [Other green technologies](#), [Finance and markets](#), [China's peak oil and renewable energy targets](#), [Population and ageing societies](#), and [Biodiversity and conservation](#).

## Human resilience



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The [International Transformational Resilience Coalition](#) (ITRC) is a network of over 350 leaders working to build widespread levels of psychological and psycho-social spiritual resilience for the impacts of climate change. A goal of the ITRC is to help grow a movement to ensure that by 2025 every adult and youth residing in the west coast (of the US) has the opportunity to learn Presencing and Purposing, skills that enable them to think, act, learn and grow in new ways, even in the unhealthy conditions generated by climate change. You may read more about the inventory of programs that was recently completed [here](#).

## Youth and grassroots movements



[Extinction Rebellion](#)

Building resilience in many respects means building community, mutual trust and self-reliance. Youth movements are engaged on the ground and in their localities, building resilience and community. In

many cases, these community building entities have emerged out of the protest movements that have sprung up to fight pipelines and extraction projects.

Protest movements like the one that has, along with litigation, effectively killed the Keystone XL pipeline might grab the headlines, but groups like Mutual Aid Disaster Relief are showing a way forward toward community self-reliance rather than dependency. An interview with Mutual Aid Disaster Relief can be found [here](#), and a podcast regarding their work and that of the Democratic Socialists of America in the Florida Panhandle can be found [here](#). These grassroots groups serve as a strong reminder that democracy - and the struggle against climate change - are built from the ground up.

Joining the Sierra Club, new grassroots efforts are making waves as well. [This is Zero Hour](#), the [Sunrise Movement](#) and [Our Children's Trust](#) supporting Juliana v. the United States have all succeeded in drawing thousands to protests to demand immediate action on climate change. Extinction Rebellion has blocked the streets of London and has moved to New York with a formula of no-holds-barred direct action. Most remarkably, and perhaps most importantly, is the youth of the activists participating and organizing these actions. [Putting 1000 people](#) willing to disrupt business as usual in the halls of power will make someone listen. These are fresh new voices, neither jaded nor naive. They have seen what is possible and they can imagine a great deal more.

## Renewables and car-free cities



The power of local organizing can also be found in the Sierra Club's Ready for 100 campaign, which in early-December achieved 100 cities who have committed to 100% renewable energy. This and other efforts cities continue to be the laboratories for what's possible. As we reported earlier, Bologna is attempting a voluntary scheme whereby participants are encouraged to voluntarily walk, bike or use public transport. [Madrid](#) recently banned all non-electric vehicles from its city center, an area of 472 hectares (1,166 acres). The Spanish government says other cities will follow. Milan has announced plans to plant 3 million trees. This joins the "[Bosco Verticale](#)" and the city's new "[Library of Trees](#)," inspiring [new ways to look at cities](#) worldwide.

## Other green technologies



Mike Ward

What has been achieved despite strong headwinds from a fossil fuel industry deeply entrenched in global society is quite remarkable. With minimal subsidization - far less than massive annual subsidies given to the fossil fuel industry - the past two decades have seen enormous transformations in power generation and the electrification of the transportation industry. Some 370,000 people now work for solar companies in the US, a number that has grown 20% annually since 2012. Meanwhile, Tesla has achieved the impossible: An electric car with range similar to that of a fossil fuel powered vehicle which is attractive to consumers. The Model S achieved the status of number one selling luxury sedan in America in 2016 and in September of this year, the Model 3 became the best selling American made car.

## Finance and markets



[PNUD Mexico](#)

Governments and financial markets are starting to realize how future, as yet unrealized, climate risks (including major events such as storms, floods and droughts; policy decisions; and the success and failure of companies) could lead to economic shocks, causing up to 45% losses in an equity investment portfolio value, and within timescales that are relevant to all investors. The findings by the Cambridge Institute for Sustainability Leadership show that even the [perception of climate change is a risk that](#)

[must be taken into consideration when assessing investments](#). Major European investors, including insurance companies and pension funds, [are already refusing cover or pulling holdings from companies that make money from coal](#).

The market disruption caused by Tesla is being responded to by the introduction of electric entries from every major automobile manufacturer and has also encouraged a number of startup companies that are attracting investment capital. With minimal government intervention, [investors now see opportunity in industries](#) they wouldn't have given a second glance to just a decade ago.

The biggest recent advances in rooftop solar have come not in technology, but in standardization and finance. Finance allowed companies like SolarCity to offer leases and payment plans bringing in a number of customers into the market who might have balked at paying for a system out of pocket. Scaling and standardization enabled installers to cut the amount of time it takes to install systems and to obtain competitive bids from solar component manufacturers worldwide. They could thereby take advantage of the enormous manufacturing prowess of China, and allowing China to take advantage of American and European solar technologies.

## China's peak oil and renewable energy targets



[China Green Energy](#)

We only have 12 years to keep global warming below 1.5°C, the latest [IPCC report](#) warns. But to get there we need “rapid and far reaching” changes in our socio-economic systems at unprecedented scales, implying deep emission cuts.

Encouragingly, the world's biggest energy consumer, China, is the clear leader right now when it comes to commitment to the Paris agreement. By capping its coal consumption and pushing up its renewables target to [35% by 2030](#), it's likely that China's emissions have already [effectively peaked](#), and earlier than expected.

However, China is seen as both the [cause and potential solution of the problem](#). On the one hand, it is the biggest carbon emitter due to its sheer scale and continued reliance on coal. Furthermore, energy

distribution is utterly inefficient and there is a wide gap between the central government's green energy targets and the energy generation in the faraway provinces. There is, of course, also the question of transparency when it comes to carbon reporting requirements. On the other hand, China has recognized green energy as an economic issue, becoming a world leader in exporting renewable technologies. But as China is already feeling the impacts from climate change and severe air pollution, it is forced to act fast - making it pivotal to the world's climate.

We also found positive examples with regard to two other global problems – overpopulation and biodiversity loss:

## Population and ageing societies



### [Pexels](#)

Talk about overpopulation and its destructive impact on the environment has long been taboo. Finally, there seems to be some [change on the horizon](#) as mainstream media starts talking about family size, according to the organization Population Matters. Promising signs of change are afoot, with unprecedented coverage of population and family size in the media (including The Times, Washington Post, The New York Times, The Guardian, the BBC) – signaling hope that this long-neglected issue is getting greater attention.

Meanwhile, [new research](#) by the University of Gothenburg, Colorado State University and University of Queensland, suggests that aging human populations are good for us and good for the Earth. The authors conclude that the often cited problems associated with aging societies are both overstated and manageable, whereas trying to avoid aging by boosting births or immigration is relatively ineffective, creating even greater problems down the line. Older age and stable or declining populations are associated with substantial social, economic, and environmental benefits which more than outweigh any economic costs to support the elderly. Aging societies should therefore be embraced as part of a just and prosperous future for people and the other species with whom we share our planet. (See also link [here](#))

## Biodiversity and conservation



[Freda Bredeesen](#)

At last here are some good news for some of our large carnivores: [Tiger numbers rise](#) for the first time in a century, thanks to conservation successes in India, Russia, and Nepal. This has been achieved by stepping up on poaching, offering compensation to farmers and villagers, investment in sustainable tourism and tiger reserves, and strong commitments from national governments.

In Europe, [wolves, bears, lynx and wolverines](#) are making a comeback. Due to the deep-rooted hostility in human culture towards these animals, which are perceived to negatively affect agricultural livelihoods and also face ecological and political barriers, they are one of the most difficult groups of species to conserve. Their reintroduction was aided by pan-European legislation - particularly the Council of Europe's Bern Convention and the EU's Habitats Directive. The coexistence strategy's success also relied, in part, on humans re-adapting to life with these carnivores.

In the United States, the world's largest dam removal and [restoration of the Elwha river](#) also shows that it is possible to reverse biodiversity decline. After a century of absence, salmon have returned to the Elwha; other fish and marine creatures are thriving too. The dam removal has also improved the Elwha's "nearshore environment", an aquatic habitat along the shoreline which provides refuge and feeding areas for fish and other organisms – helping them transition from freshwater to the sea.

## Marine protection and technology



Here is a positive example where big and open data can help drive conservation: Unsustainable and unregulated fishing techniques have a devastating impact on our oceans, destroying marine ecosystems, depleting fish stocks, endangering the livelihoods of people and threatening food security. Illegal, unregulated and unreported fishing is one of the biggest threats to ocean sustainability. The FAO estimates that illegal fishing is between US\$10 billion and US\$23 billion per year, accounting for 11–26 million tons of fish each year. [Global Fishing Watch](#) (GFW) is an international non-profit organization committed to drive the sustainability of our oceans through increased transparency. Using an automatic identification system (AIS), their data and analysis captures intelligence on vessel behavior and operations, and can flag up suspicious fishing activity. Their data is increasingly being used by governing bodies to strengthen transparent governance of marine resources in support of sustainability goals. Currently, GFW shows the activities of at least 60,000 commercial fishing vessels. Within 10 years, they intent to track all large-scale fishing (about 300,000 boats are responsible for about 75 percent of the global marine catch), and increase the ability to track small-scale fishing vessels.

The Great Pacific Garbage Patch (GPGP) is the largest accumulation of ocean plastic in the world, located between Hawaii and California. It is estimated that currently more than 5 trillion pieces of plastic are floating in the ocean, and each year, we are adding millions of tons to it. Large amounts of this plastic drift and concentrate into large patches of circulating ocean currents, the so-called gyres. If left to circulate, the plastic will impact our ecosystems, health and economies.

Collecting the plastic with conventional vessels and nets would not only harm sea life but would also be too time-consuming and costly. [The Ocean Cleanup](#), a non-profit organization, is currently developing and testing advanced drifting technologies to accomplish the task: passive floating systems that take advantage of the oceans' currents can capture plastic pieces ranging from the size of millimeters up to large chunks of debris, including discarded fishing nets. The first cleanup system was launched on 8 September this year from San Francisco Bay. Models show that a full-scale cleanup system could clean up half of the GPGP in only five years, and at a fraction of the cost.

## Other good news



[Pexels](#)

Thanks to Norwegian journalists and the [Sea Shepherd Conservation Society](#), the “Thunder” - the world’s most notorious ship known for illegal fishing, was brought to justice in what has been reported as [the world’s longest ship chase](#). For years the vessel had been illegally netting millions of dollars by plundering the Antarctic seas for Patagonian Toothfish - using a network of organized international crime, sailing under different names and flags, and by exploiting tax havens and legal loopholes. It also seems that the Thunder – which was wanted by Interpol and part of a group of rogue ships - was being helped by the international authorities turning a blind eye. After being chased over 16,000 kilometres by the Sea Shepherd’s vessel “Bob Barker”, the Thunder’s crew finally surrendered but scuttled their ship, presumably to destroy evidence. The Thunder’s owner was fined but thought to have escaped jail. A positive outcome for the oceans even though there’s still a long way to go.

In another case, after accusations of polluting the sea and illegal fishing, [the “Damanzaihao” - once a flagship of China Fishery and the world’s largest fish factory ship - was seized in Peru](#). The ship was stripped of its flag, stopped from leaving the country’s waters and the crew arrested. According to the [Sea Shepherd Conservation Society](#), the massive 50,000-ton vessel could process up to 547,000 tons of fish a year. It had the capacity of twice the world's quota of mackerel, processing vast quantities of fish off the coasts of South America. According to Sea Shepherd, the vessel was particularly engaged in overfishing mackerel stocks in the South Pacific. Its confiscation should help curb the destruction of global marine ecosystems.

## And so....



[Alan Levine](#)

It is often difficult to remain optimistic given the herculean challenges we face about our planet. But, coming back to our initial question of “what’s working?”, we found many examples that prove change can be achieved if there is enough will to make it happen, and that shine a light on the path forward.

Change always starts with the individual. A first thought, followed by intent, words and action: like-minded individuals coming together so that single voices culminate in a roaring chorus. The examples we found include youth, grassroots and community movements who are working together to stop damaging developments or are building human resilience in the face of climate change. We also see that financial markets are slowly changing as they realize the investment risks of doing business as usual. There are governments who are forced to change tack as they are increasingly facing the economic and social realities of climate change, and businesses who are environmental leaders, not laggards. We are beginning to see research on population and environmental destruction, and more people daring to talk about it - unthinkable a few years ago. There are also examples of some conservation efforts bearing fruit.

There is no room for complacency though. These little green sprouts appearing here and there need to be nurtured into strong trees if we are to reclaim the once lush ground. What seems to be working, therefore, is a combination of research and education, raising awareness, engagement on all levels, and relentlessly piling pressure on politicians, organizations and corporations.

We have a long way to go and things will likely get much worse before they get better. A major obstacle is that most of our species still favor short-term gains over long-term stability. But looking back at the examples we found - and there are many more - can give us hope for the future. Hope that if we are tireless in our efforts we can mitigate this crisis of the Anthropocene and create a better world - for the love of the human and non-human beings on this Earth.

Wishing you a very Happy New Year, hope and resilience for the year ahead.

Sincerely,  
The MAHB

***The MAHB would like to extend a huge thank you to members Sibylle Frey and Jonathan Staufer, who contributed their writing, insight and dedication to sharing the world's news with others to produce this newsletter.***