



THE WORLD'S OCEANS ARE IN TROUBLE

NOW YOU SEE THEM, SOON YOU WON'T

Almost half of all populations of marine animals with a backbone have declined in just 40 years, according to a report released Tuesday by the World Wildlife Fund.

Not only that, but nearly a third of the world's fish stocks are being overfished, and three-quarters of the world's reefs are threatened by global warming and ocean acidification. They reflect the degree to which is can affect our planet.

If these trends continue, all coral reefs could be gone by 2050, the researchers said "ook at the population growing to nine billion people in the context of a finite planet, the thing that is going to wreck our planet.

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IN SPECIES ARE
THREATENED WITH
EXTINCTION,
AS A RESULT OF
OVERFISHING

A DISTURBING TREND

A report last year on trends in worldwide animal populations, known as the Living Planet Index, saw a 52% decline in the world's vertebrates from 1970 to 2010.

Now, scientists have compiled a similar report for marine species and found a picture that's similarly bleak. We've lost 49% of these populations — just about half of all the animals with backbones in our oceans — from 1970 to 2012.

The sharpest decline occurred between 1970 and the mid-1980s, then marine vertebrate populations were stable for a while. But more recently, these populations have been falling again, largely due to human activities.

75%

FISH DECLINE OVER
THE PAST 40 YEARS

TIME TO ACT

According to the report, the decline in ocean life is primarily driven by human activities, including overfishing, habitat destruction, and climate change. This is bad news for the 3 billion people who depend on fish as a major source of protein.

More than a quarter of all marine species live in coral reefs, and yet they cover less than 0.1% of the ocean — an area about half the size of France. About 850 million people benefit economically, socially, and culturally from these reefs.

"The good news is there are abundant opportunities to reverse these trends," Brad Ack, senior vice president for oceans at WWF, said in a statement. The report outlined several solutions to the problems, such as protecting marine habitats, managing and improving fishing practices, and directing more funding to these efforts.

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BLUE ECONOMY CHALLENGE INVITES NEW SOLUTIONS FOR OUR OCEANS ISSUES

Do you have the best recipe for a seaweed shake? Have you been inspired by other ways we can farm fish? If so, you need to check out the Blue Economy Challenge.

Together with the innovationXchange of the Australian Government, Conservation X Labs, NineSigma, Second-Muse, WWF has launched a new competition to source creative solutions and engage new solvers to rethink the future of aquaculture—also known as farmed fish.

This industry is a vital producer in the global seafood market, accounting for nearly 50 percent of the fish we eat. However, the rapid expansion of this industry has not come without impacts on the environment and society. Blue Economy Challenge aims to address these impacts by crowdsourcing new and innovative approaches to aquaculture in the Indian Ocean region. Transformations in this region can help address the stresses of poverty of coastal communities who rely

“We plan to reengineer aquaculture for sustainability to achieve a Blue Revolution for our Oceans.”

on fish for their livelihoods while ensuring access to nutritious food and conserving ocean resources. The challenge invites all innovators, from technologists and conservationists, backyard inventors, designers, fishers and more to share ideas around three critical areas: To rethink the feeds used in aquaculture; redesign aquaculture systems; and create new and nutritious ocean products that improve food security and enhance sustainability. Indian Ocean Rim nations have the advantage of an extensive coastline and rich living resources, and have formally recognised that fisheries and aquaculture will

be drivers of their regional Blue Economy. For this to be a viable way to achieve the sustainable development goals, aquaculture practices must also be environmentally sustainable ensuring renewable ocean resources into the future.

The challenge will run from Feb. 29 through June 30, 2016. An international panel of expert judges from development, conservation, and industry will then evaluate the applications.

TYPES OF CHALLENGE:

1

RETHINKING FEED FOR AGRICULTURE

Create highly nutritional aquaculture feed replacements that match or improve on the cost and nutritional performance of existing feedstock while reducing the burden on the natural environment.

2

NEW OCEAN PRODUCTS

Create new ocean products that vastly expand the diversity, sustainability, and quality of aquaculture products to meet growing food security needs while decreasing aquaculture's environmental footprint.

3

SUSTAINABLE DESIGN

Introduce new designs, methodologies, products and other innovations that are financially and environmentally sustainable, scalable, and will dramatically improve the efficiency of aquaculture farms thereby improving productivity, livelihoods, and market value.

TAKE ACTION:

Aquaculture has great potential to contribute to Food Security, Nutrition, Livelihoods and Economic. But if the industry's growth is at the expense of ocean health and conservation, then developing countries will not harvest long term social and economic benefits.



WHAT ARE THE MOST IMPORTANT CHALLENGES BEING ADDRESSED TODAY, AND WHAT WILL IT TAKE TO SOLVE THEM?

The ones that strike me as being fundamental are the ones that combine the issue of food with the issue of the oceans and conservation, and that rely on both the private sector and governments to come together and create the enabling conditions to tip things in the right direction. That includes aquaculture, an increasing source of food in the world. It relies heavily on wild fisheries providing food through aquaculture — which is only getting bigger year, after year, after year. So, if we can get aquaculture right, through technology and governance, then it will go a long way toward lessening its footprint on the ocean.

The other one is transparency and traceability. The US and the EU have passed new regulations that will essentially take steps to close our market to fish that have been illegally caught. The question is how do you bring that to life? How do you track vessels, how do you track fishing? How do you know where each and every fish came from so we can all make decisions based on that? And that one, which brings together all the key players, is all about food, and believe me, when you



look at the population growing to nine billion people in the context of a finite planet, the thing that is going to wreck our planet.

The Big Think is a high level meeting to re-imagine how to address the challenges threatening our oceans and the people who surround them, while meeting the demands of the next generation. This was the first step in a new initiative designed to generate novel innovations to address complex conservation challenges in the oceans through revolutionary advances rather than evolutionary ones. The Blue Economy Aquaculture Challenge that is led by Australia's Department.

WHAT IS AN EXAMPLE OF A NON-SCIENTIFIC PROXY FOR OCEAN HEALTH?

I think all of our proxies should be science-based in order to have any kind of credibility. I think what we need are credible, science-based measures that aren't too complicated, that are easily replicable, and that the world can use, much in the way that 160 countries came together on Sept. 25 and put into place these new sustainable development goals for the planet.

When you look at the list of sustainable development goals, they're each measurable, they each rely on global measures that are science-based, and when you look at the set of sustainable development goals, they reflect the degree to which we rely on a healthy planet.

Half the goals are about the planet, because if we lose the planet, we're sunk. And the ocean, as the majority of the planet, has a huge role to play in whether or not our children and our grandchildren inherit a world that is livable, that can sustain their families — whether that means their jobs.

WHY A CHALLENGE?

A CHALLENGE IS A NEW APPROACH TO AN OLD PROBLEM.

In short, it is an open process that expands the pool of talent and creativity to find, create, incubate, and accelerate effective and impactful solutions to complex problems.

THE RESULT CAN INSPIRE FASTER, BETTER AND CHEAPER SOLUTIONS FOR THE INTERNATIONAL DEVELOPMENT AID PROGRAM.

This AU\$3 million challenge calls for innovators, entrepreneurs, designers, NGOs and academics to rethink advances in aquaculture to provide solutions that ensure both sustainable development and environmental sustainability.

AWARDS:

DESIGN AND VALIDATION (UP TO AU\$250,000)

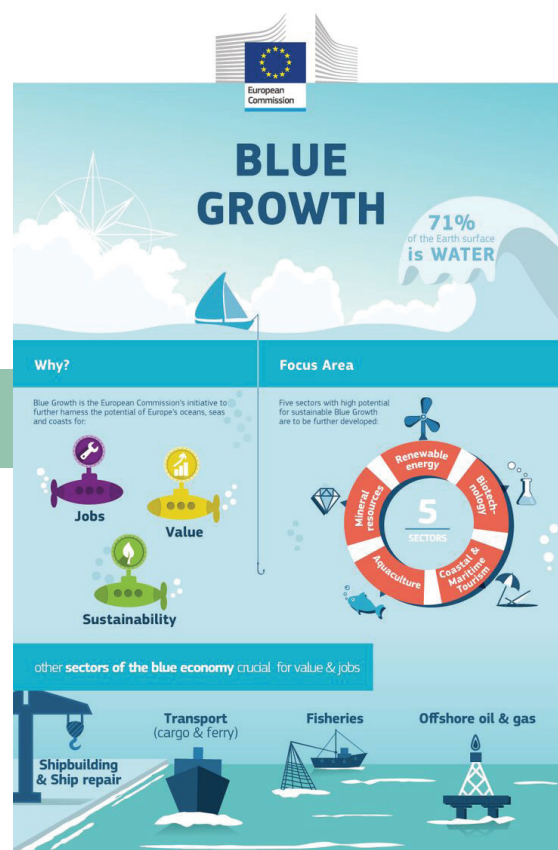
Early stage financing allows you to validate your design for performance in the field. This iterative process can help shape your innovation and address any unforeseen difficulties or barriers.

At this small scale, is it technically and financially feasible? Appropriate for the Indian Ocean region? In what ways does it improve on current practice?

POSITIONING FOR SCALE (AU\$250,000-750,000)

Late stage financing supports innovations that performed well in the field and warrant market testing. This scaling process can help assess regional sensitivities, refine operational procedures and validate business models.

Is there successful uptake and market integration? Will the social and environmental impacts improve lives and support a sustainable blue economy?



ROYAL CARIBBEAN CRUISES AND WORLD WILDLIFE FUND ANNOUNCE GLOBAL PARTNERSHIP TO SUPPORT OCEAN CONSERVATION

SUSTAINABLE SEAFOOD 2020 TARGET

Responsibly source 90% of its wild-caught seafood by volume from MSC certified sustainable fisheries, fisheries in full assessment for MSC certification, comprehensive Fishery Improvement Projects (FIPs), and/or sourced from International Seafood Sustainability Association (ISSA) member companies.

In North America and Europe operations, responsibly source 75% of its farmed seafood by volume from ASC certified responsible farms, farms in full assessment for ASC certification, and/or comprehensive aquaculture improvement projects.

In addition, by June 30, 2016, RCL will set specific traceability goals with targets for obtaining MSC and ASC chain of custody.

REDUCE GREENHOUSE
EMISSIONS BY 2020 BY

35%

Five-year partnership sets ambitious and measurable goals to reduce company's environmental footprint and support WWF's global oceans conservation work

The targets announced today focus on supply chain sustainability and emissions reductions through 2020. Royal Caribbean and WWF also are working together to develop targets aimed at strengthening the company's sustainable sourcing strategy and its destination stewardship and sustainable tour operations platforms.

"Our mantra at Royal Caribbean is 'Continuous Improvement,' and this partnership with WWF represents a great opportunity to make a big step forward in meeting our special responsibility to protect the oceans," said Richard D. Fain, Chairman and CEO, Royal Caribbean Cruises Ltd. "It is also gratifying to see that our determination to make a meaningful difference is shared by our employees and our guests. This new partnership aligns all of us at RCL with WWF's mission to conserve the world's oceans. Together we are setting aggressive goals and together we will start implementing them right away and sustainable tour operations platforms"

"The threats that are facing the ocean are greater than ever – in the last 30 years, some ocean wildlife populations have declined by nearly 50 percent. If we are going to reverse the downward trends, we must take serious steps

to repair, restore and protect the oceans," said Carter Roberts, WWF-US President and CEO. "This initiative centers on two core concepts: first, committing to specific and measurable targets to reduce carbon emissions, increase sustainable sourcing and build destination stewardship; and second, comprehensively engaging their millions of travelers to learn about the ocean and then act to help save it." In addition, Royal Caribbean and WWF have agreed to develop and announce new targets by June 30 that will address destination stewardship.

As part of this, WWF and RCL will collaborate to strengthen RCL's destination sustainability assessment and selection process. Royal Caribbean also will financially support WWF's global ocean conservation work through a \$5 million philanthropic contribution during the partnership, and will collaborate with WWF to build global awareness about ocean conservation issues among its millions of passengers. The organizations made their announcement at an event in Donsol, Sorsogon, Philippines that is home to a model community-based ecotourism program. At the event, RCL also made a separate, \$200,000 donation to WWF Philippines in support of conservation programs best ones.



ALMOST A THIRD OF ALL NATURAL WORLD HERITAGE SITES UNDER THREAT OF OIL, GAS AND MINING EXPLORATION

Almost a third of all natural World Heritage Sites has the threat of oil, gas and mining exploration hanging over it, according to a new report. This threat rises to an alarming 61 per cent in Africa.

Natural World Heritage Sites (WHS) are places of outstanding natural value, such as the Grand Canyon, the Great Barrier Reef, and the Selous Game Reserve in Tanzania.

The new assessment - in a report called Safe-guarding Outstanding Natural Value, produced by WWF, Aviva Investors and Investec Asset Management, puts the risk at a higher level than previously thought. The report also brings to light the risk to investors of involvement with extractives companies working, or intending to work, in or near these special places.

Covering less than one per cent of the planet and containing outstanding natural value such as iconic landscapes and species, natural World Heritage Sites are in increasing danger of exploitation and irreparable damage, which in turn damages the communities who depend on these amazing places for their livelihoods.

Furthermore, natural World Heritage Sites are home to some of the rarest and most treasured animals on Earth, such as mountain gorillas, African elephants, snow leopards, whales and marine turtles.

The threat level relates to active operations by extractive companies, or intrusion that may come as a result of concessions for exploration of minerals or oil and gas overlapping these sites.

Investors are being warned in the report of their risk exposure if they back the companies involved, both in terms of financial risk and threats to their reputation; in short, there is too much risk for not enough reward in this case.

WWF is calling on investors to use the evidence in the report to engage with the extractive sector at industry level to encourage the wider adoption of no-go and no impact commitments for natural WHS, and for companies to proactively disclose active, existing, or intended activity within, or adjacent to, natural World Heritage Sites. Alternative and sustainable development of natural World Heritage Sites

WWF-UK's Chief Executive David Nussbaum said, "We are going to the ends of the Earth in pursuit of more resources – resources, including minerals, oil and gas, that are becoming more difficult and more expensive to extract. Some of the world's most treasured places are threatened by destructive industrial activities that imperil the very values for which they have been granted the highest level of international recognition: outstanding natural value.

"Protecting these iconic places is not only important in terms of their environmental worth; it is crucial for the livelihoods and future of the people who depend on them. Working with industry leaders such as Aviva and Investec will help us to get this message out to the wider finance industry. Investors have a unique opportunity, and indeed responsibility, to be stewards of capital and shape our future."

Euan Monro, CEO of Aviva Investors, added, "We have welcomed working together with WWF and Investec on this report. We place significant store on our portfolio managers taking wider environmental, social and governance issues into account in their investments. Mismanaged, these can lead to catastrophic loss of value for long term investors. This report provides the information we need to make better decisions and encourage others to do the same."

Investec Asset Management's CEO, Hendrik du Toit said, "We support the need for further awareness and clearer disclosure by extractive companies on their exposure to these areas to better inform investment decisions. It will also allow investors, such as ourselves, to engage more effectively with companies and be better placed to address our responsibilities toward our clients who are concerned about this pressing issue at World Heritage Sites"



in the document to ensure they are aware of whether those they are (or are considering) investing in have concessions or operate within natural World Heritage Sites;

Engage directly with extractive companies that are active in or near these sites to encourage them to change their plans; and

To consider divestment from these compa-

Newsreport puts potential global risk at highest level yet of 31 per cent.

Risk rises to almost two thirds (61 per cent) for natural World Heritage Sites in Africa.

Investors warned to assess risk of backing extractive companies threatening WHS.

nies if progress is not made to leave the site, and to disclose when they've divested and why.

Alternative and sustainable development of natural World Heritage Sites is proposed as a far better solution to safeguard the futures of both natural resources and local, national and global communities. If the sites and their ecosystems remain intact, these unique places can provide long-term, significant benefits; Investors are being warned in the report of their risk. As a result of concessions for exploration of minerals or oil and gas overlapping these sites.



WWF CALLS FOR END TO HARASSMENT OF FISHERIES

With World Fisheries Day being celebrated today, WWF is calling upon fishery managers to urgently address the increasing assaults and intimidations targeted at fisheries observers and to immediately take measures to ensure their health and safety onboard fishing vessels.

WWF is shocked about the number of disappearances of observers on fishing vessels: marine biologist Keith Davis disappeared at sea in September working as an observer in MRAG Americas' IATTC Trans-shipment Observer Programme. Charlie Lasisi, another observer employed by the National Fisheries Authority of Papua New Guinea disappeared while working on a tuna vessel in 2010; the body was never found. Multiple African observers are reported to have vanished at sea under suspicious circumstances and have never received any form of recognition. Multiple African observers are reported to have vanished.

"Most observers never experience any kind of assault, but every observer who has been doing it for very long has a story of being threatened or harassed at some point," said Bubba Cook, WWF's Smart Fishing Initiative Western Central Pacific Ocean Tuna Programme Manager. "This is simply unacceptable.

The first opportunity to address this urgent issue falls to the 40 member countries of the Western and Central Pacific Fishery Commission (WCPFC), holding their 12th annual meeting 3 until the day of 8 of December in Bali, Indonesia.

"Fisheries observers play a very important role, they are the "eyes and ears" of our enforcement agencies charged with protecting our ocean resources. They also serve as the front line of scientific research, measurement, assessment and reporting while stationed on fishing vessels", said Cook.

"Fisheries observers are not "policemen" but they document everything that happens on the ship and have an obligation to report any violations. As such, they help us to better understand the health of our fish populations whilst, at the same time, ensure. opulations whilst, at the same time, ensure.

Among other technologies, video monitoring and the Automatic Identification System (AIS) must be mandatory on all fishing vessels to create transparency at sea. These surveillance measures will increase safety for observers and can also demonstrate that the fishery is not involved in illegal fishing activities, this is simply unacceptable" said Cook.

WWF asks all Regional Fisheries Management Organisations (RFMO's) to immediately adopt procedures to ensure the health and safety of fisheries observers, by implementing the International Observer Bill of Rights. Furthermore, member states must be required to report to the RFMO any event involving threats, intimidations, harassments and assaults, not to mention any disappearance of observers or crew participants.

Besides better Observer treatment, WWF demands for the 12th WCPFC meeting include adopting robust, precautionary harvest strategies for all tuna species to reduce fish mortality rates to an ecologically and economically sustainable level, as well as adopting conservation management plans to better protect sharks, tuna species and birds, and to establish a procedure to control measures, among other issues. ensure. Populations whilst, at the same time, ensure.