

The following is an excerpt from Cassandra's forthcoming book, CLIMATE OPIUM, which explores how we are overdosing on false solutions to climate change and why the United Nations Paris Agreement is a crime against humanity and Mother Earth. Thanks to the Swift Foundation, the CLIMA Fund and Global Justice Ecology Project for their generous support. Opinions and views expressed are solely my own and do not necessarily express those of these gracious supporters.

Please note that the following contains content and graphic images that some may find distressing.



Photo: © Craig Lambert / stock.adobe.com

SAVE THE WHALES... from the carbon market!

Man's greed in the ocean is hurting the whales.
-Hori Parata,
Elder of the Ngātiwai tribe of Aotearoa!

National Geographic and Disney+'s *Secrets of the Whales* may be part of a global campaign to convince you to help put whales in the carbon market, which could speed up the extinction of whales.

In episode 4 of *Secrets of Whales*, National Geographic and Disney+ tell us that whales and their "poop" help combat climate change.ⁱⁱ The International Monetary Fund, the counterpart of the World Bank, agrees, calling whales "Nature's Solution to Climate Change."ⁱⁱⁱ In fact, the International Monetary Fund (IMF) has calculated that you need to pay \$13 a year to "save the whales"^{iv} and the planet.^v

The Funding Mechanism - You

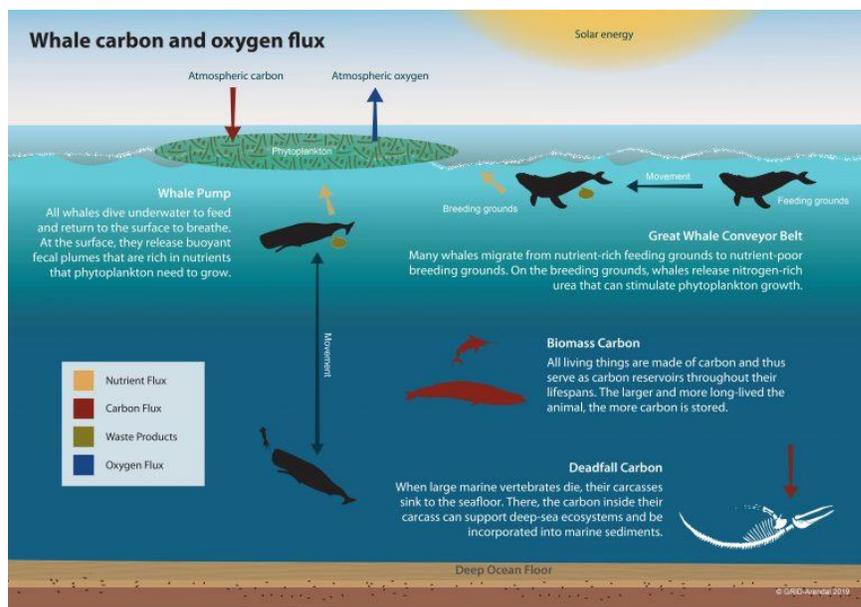
According to Ralph Chami, Assistant Director in the International Monetary Fund's Institute for Capacity Development, "If whales were allowed to return to their pre-whaling numbers—

capturing 1.7 billion tons of CO₂ annually—it would be worth about \$13 per person a year to subsidize these whales’ CO₂ sequestration efforts.”^{vi} Sacred whales, the biggest mammals of the world, the leviathans of the ocean, are being reduced to a giant carbon offset business opportunity.^{vii} And you are supposed to be the funding mechanism for this ghastly false solution to climate change; this fake silver bullet to global warming.

The United Nations,^{viii} 41 countries including the United States,^{ix} the International Monetary Fund as well as NGOs such as WWF^x and The Nature Conservancy,^{xi} among others, are in favor of whale offsets. The IMF proposes that to save the whales and solve climate change, you should help compensate whale killers not to kill whales;^{xii} and subsidize turning whales into polluters’ private property in the form of carbon offsets. The whales of the world are on the verge of be transformed into permits to pollute – available to be bought and sold on the carbon market. Whales are slated to be reduced to mere “fish carbon”^{xiii} or “blue carbon.”^{xiv} These prototypes for the commodification and privatization of oceans and all of Life for carbon offsets and greenwash, go by many names such as the United Nations’ “Nature Based Solutions,”^{xv} the U.S. Congress’ Ocean-Based Climate Solutions Act,^{xvi} the World Bank’s Blue Economy,^{xvii} the Blue New Deal,^{xviii} the Global Deal for Nature,^{xix} and the Green Economy.^{xx}

A Whale of a Tale: The false premise of whale offsets

Whale carbon offsets are calculated based on how much carbon dioxide whales absorb and how their iron-rich excrement serves as food for tiny marine algae called phytoplankton, who also absorb carbon dioxide. The following graphic by GRID-Arendal, a partner of the United Nations Environment Program, entitled *Whale carbon and oxygen flux*^{xxi} illustrates how carbon traders want to turn whales into carbon offsets.



Source: GRID-Arendal, 2019.

What's a carbon offset?

The premise of a carbon offset is that the greenhouse gases causing global warming such as carbon dioxide can be permanently absorbed by Nature. To create a carbon offset, Nature's absorption of carbon dioxide is measured in terms of tons of carbon. These tons of carbon are turned into carbon credits or permits to pollute, and bought, sold and traded on carbon markets to polluters to supposedly offset or compensate for their pollution. Cheap offsets let polluters off the hook and let them pretend they are green, carbon neutral and achieving net zero emissions, when, in fact, their pollution continues unabated.

There are many problems with offsets that make them useless but the main one is that because we have extracted and burned vast quantities of fossil fuels, we have destroyed Nature's capacity to absorb any more carbon dioxide. For example, the Amazon is now an emitter of carbon dioxide rather than an absorber of carbon dioxide. Another huge problem with offsets is that the carbon dioxide absorbed by Nature is released when parts of Nature die and decompose, and, hence, not permanent. Carbon offsets, be they with forests or whales, are not a solution to global warming. For decades, it has been proven that offsets far from reducing emissions, allow greenhouse gas emissions to increase.

Whale offsets with whales' bodies

Whale carbon offsets are being proposed with whales' bodies. Under the heading of *Biomass Carbon*, GRID-Arendal writes that "All living things are made of carbon and, thus, serve as carbon reservoirs throughout their lifespans."^{xxii} So far so good. All living beings, including soils, plants, trees, animals, whales and even we, humans, are made of carbon and store carbon during our lives. In fact, we all could potentially be considered "carbon reservoirs" or carbon sinks. (Let's hope that carbon traders don't try and put us into the carbon market!)

GRID-Arendal goes on to say: "The larger and more long-lived the animal, the more carbon stored."^{xxiii} So, a whale stores more carbon than a dolphin or you. Yes, but what happens when we or the whale or the dolphin die and decompose? Under the heading *Deadfall Carbon*, it reads: "When large marine vertebrates die, their carcasses sink to the ocean floor. There, the carbon inside their carcass can support deep-sea ecosystems and be incorporated into marine sediments."^{xxiv} Let us not forget that the dead decompose. That is a universal whether you are a whale or not. And decomposition RELEASES carbon.

According to *What happens when whales die?*,^{xxv} "Decay sets in soon after the death of a whale, as the insides begin to decompose. The animal then expands with gas and sometimes floats up to the ocean's surface, where it can be scavenged by sharks and seabirds."^{xxvi} As they decompose, floating whales balloon with gases, and can even explode.^{xxvii} This process of a decomposing whale sinking, ballooning and floating^{xxviii} may vary depending on the type of whale, but it also can happen repeatedly "buoyed by blubber and gas that microbes release inside the decomposing gut."^{xxix}



A great white shark feasts on a floating dead right whale
Source: *The Atlantic* / South Carolina Department of Natural Resources / Bryan Frazier

When we die, we release the carbon we have stored. The storage of carbon in living beings is always **TEMPORARY**. It is NOT permanent. The cycle of life and death is a cycle of movement. Whale carcasses take decades to fully decompose,^{xxx} but decompose they do. In the process, they are fed upon. However, whoever eats them sooner or later also dies and releases carbon. Nature is not static. Whales are not a vacuum and safe deposit box for the world's carbon. And whales most certainly are not "a trillion-dollar climate change fix"^{xxxi} as carbon traders would have us believe.

Furthermore, a by-product of whale decomposition is hydrogen sulfide.^{xxxii} Hydrogen sulfide is not a greenhouse gas, but it does worsen climate change in so far as it contributes to the heating of oceans, depletes them of oxygen, and is highly toxic for marine life in small amounts.^{xxxiii}

Whale offsets with whale excrement

Whale carbon offsets are also being proposed based on how whales' excrement stimulates phytoplankton growth. The GRID-Arendal graphic illustrates how whale feces nourish microscopic single cell marine algae and bacteria called phytoplankton, which absorb carbon dioxide and release oxygen. Whales "dive underwater to feed and return to the surface to breathe."^{xxxiv} Once there, they release "fecal plumes...rich in nutrients that phytoplankton need to grow."^{xxxv} This is known as the Whale Pump. Whales also promote phytoplankton growth when they travel from their nutrient-rich feeding grounds to their breeding grounds, where their feces also fuel phytoplankton growth.



Photo: ©Tony Wu

Carbon offset promoters contend that "Ocean phytoplankton captures at least 37 billion tons of carbon dioxide (CO₂) each year – at least four times what the Amazon."^{xxxvi} Carbon traders are drooling at the prospect of selling phytoplankton's billions of tons of carbon sequestration on carbon markets.

Ocean Fertilization

For over a decade, National Geographic has also been singing the praises of how "whale poop offsets carbon by fertilizing the oceans."^{xxxvii} Trying to increase phytoplankton using whale feces or dumping iron filings or urea into the ocean is called ocean fertilization. Unnatural ocean fertilization with dumping experiments is a form of geoengineering, which violates the UN's Convention on Biological Diversity and the London Convention against ocean pollution.^{xxxviii} Pushing the ocean's capacity to absorb carbon dioxide can make the ocean more acidic and less able to sustain life.^{xxxix}



But even when ocean fertilization is achieved naturally, the increase in phytoplankton and their carbon sequestration is temporary. As noted above, when whales die, they sink to the ocean floor and/or float and eventually decompose and release carbon. Similarly, according to NASA, phytoplankton release most of the carbon dioxide they have absorbed when they die.^{xi}

And dying phytoplankton are. Historically, these microscopic plants are “the foundation of the marine food web.” All life in the ocean depends on phytoplankton. Phytoplankton also produce half the oxygen we breathe – as much as trees and plants on land.^{xii} However, “the global population of phytoplankton has fallen about 40 percent since 1950...The scientists believe that rising sea surface temperatures are to blame,”^{xiii} which are caused by none other than human-induced climate change.

“In addition to consuming CO₂, phytoplankton can influence how much heat is absorbed by the world's oceans, and some species emit sulfate molecules that promote cloud formation.”^{xiii} Fewer phytoplankton may mean fewer clouds. Less rain, more drought. More famine. Fewer phytoplankton means exacerbated global warming.

Unfortunately, some kinds of plankton are even at risk of extinction. “Many living marine plankton species may be at risk of extinction due to anthropogenic climate warming, particularly those adapted to present cold conditions at the poles.”^{xiv} Furthermore, the extinction and profound diversity loss of plankton in the near future, may have cascading effects on the ocean food web and carbon cycle.^{xiv} And the availability of half the world's oxygen.

However, dramatically increasing phytoplankton can be problematic. The Arctic Ocean is experiencing a “regime shift” resulting in a “thickening algae soup.”^{xvi} Algae blooms can also cause red tides and dead zones. According to NASA, “In the aftermath of a massive bloom, dead phytoplankton sink to the ocean or lake floor. The bacteria that decompose the phytoplankton deplete the oxygen in the water, suffocating animal life; the result is a dead zone.”^{xvii}

Putting whales into the carbon market

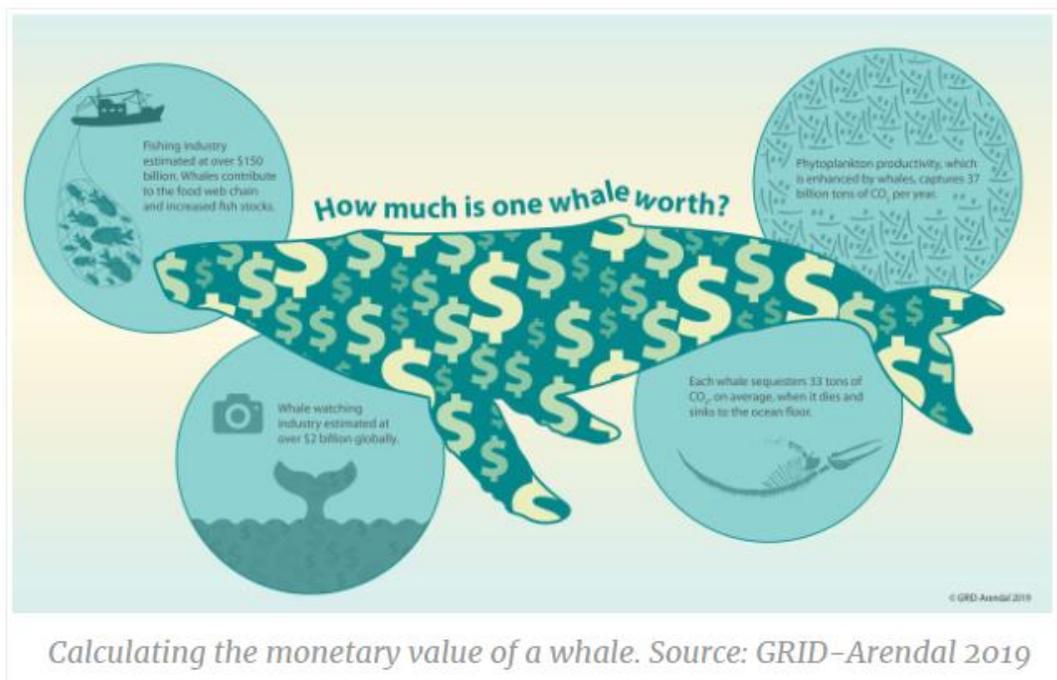
In its pitch for creating whale offsets, the International Monetary Fund is surprisingly critical of false solutions to climate such as Carbon Capture and Storage (CCS), championed by the United Nations and oil companies.^{xviii} “Many proposed solutions to global warming, such as capturing carbon directly from the air and burying it deep in the earth [or in the ocean floor], are complex, untested, and expensive.”^{xix} The IMF hails turning whales into permits to pollute, as the alternative: “Whales are “a ‘no-tech’ strategy to capture more carbon from the atmosphere.”¹

The IMF proposes to build on existing carbon market mechanisms with forests and other terrestrial ecosystems and adapt them to whales. “[I]nternational organizations have

implemented programs such as Reducing Emissions from Degradation and Deforestation (REDD) that fund the preservation of carbon-capturing ecosystems. Adapting these [carbon market] initiatives to support international efforts to restore whale populations could lead to a breakthrough in the fight against climate change.”ⁱⁱ

Putting a price tag on whales

Before you can trade whales on the carbon market, you have to pretend you can calculate a whale’s worth and monetarize Nature. You have to see dollar signs instead of a whale. Grid-Arendal does just that in this graphic entitled *How much is a whale worth? – Calculating the monetary value of a whale.*ⁱⁱⁱ



National Geographic also puts a price tag on whales. National Geographic asks “How much is a whale worth?” and answers its own question “Millions to combat climate change.”^{liii} A team led by the International Monetary Fund calculated that each adult whale sequesters an average of 33 tons of CO₂ for an average lifespan of 150 years.^{liv} Based on the price of carbon credits and other whale “services,” the team calculated the value of whales at \$2 million each; and the value of all the world's whales at over \$1 trillion.^{lv}

This is part of what is called the "Financialization of Nature" - the commodification, privatization and buying and selling of all of Nature including whales and all natural processes.^{lvi} Privatizing Nature is the basis of the next chapter of capitalism, which is called the Green Economy.^{lvii}



Source: *The Atlantic*

Capitalism kills whales

Historically, capitalism has not been kind to whales. Neither has the Soviet Union or Russia for that matter. What *Forbes* calls “Blubber Capitalism” and the intensification of whaling in the 20th century,^{lvi} brought whales to the brink of extinction in the first place.^{lvii} Whale oil and, in particular, sperm oil, were commodities that fueled growth and change during the industrial revolution.^{lviii} One scholar even hails “American whaling as the initial “lubrication of the capitalist world-economy.”^{lvix} However, contrary to popular belief, “the rising production of petroleum and other fossil fuels, rather than substituting whaling, played a central role in escalating whaling,”^{lxx} to make soap, margarine and, to a lesser degree, for meat.^{lxxi} More whales were killed in the twentieth century than in all previous centuries: almost 3 million whales^{lxxii} were slaughtered, reducing the population over 80%.



The Whale Carbon Hunt

Now, the International Monetary Fund, capitalism’s much despised global loan shark, is launching the whale carbon hunt. The whale carbon hunt wants to use endangered whales as key carbon commodities to buttress the 272-billion-dollar global carbon market.^{lxxiii} Despite the pandemic, carbon markets have “expanded more than five-fold since 2017.” Analysts foresee that the “carbon trade could be 10 times bigger than global crude oil market;”^{lxxiv} and eventually be the biggest commodities market of all time. The IMF wants to harpoon whale carbon for Wall Street’s financial speculation and futures trading, which threatens the future of humanity and whales, because it does nothing to mitigate climate change.



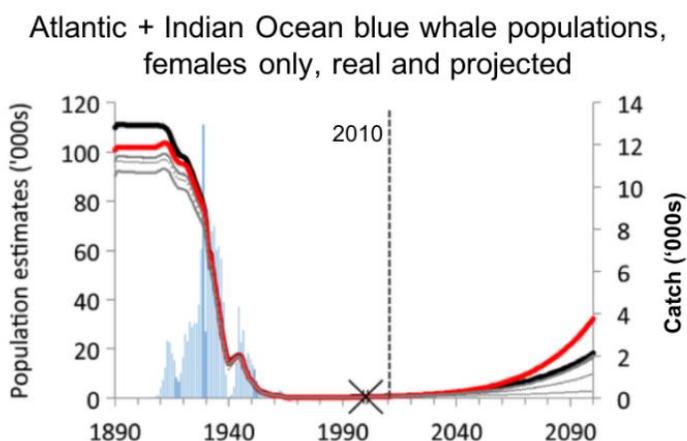
Source: *Dawn.com*

How many whales are left?

“[B]iologists estimate that overall whale populations are now less than one fourth what they once were.”^{lxvii} Some species, like the blue whales, have been reduced to only 1-2 percent of their previous abundance.”^{lxviii} Six out of the 13 baleen whale species are endangered,^{lxix} despite recovery efforts.

And the Whales are Still Being Killed

According to *Scientific American*, “most whale deaths in the past 40 years were caused by humans;”^{lxx} and “attempts to prevent whale deaths have not had a demonstrable impact”^{lxxi} with few local exceptions.^{lxxii} In the case of the North American right whale, since “only about 360...remain – with fewer than 80 reproductive-age females – each unnatural death elevates their risk of extinction.”^{lxxiii}



“Blue whale populations fell by over 99% during the 20th century. Graph and projections from Tulloch *et al.*, “Ecosystem modelling to quantify the impact of historical whaling on Southern Hemisphere baleen whales”, 2017. Blue bars are historical catches (right axis); red and black lines are population history/projections based on modeling (left axis). The projections do take into global warming.”

Source: *We did it to make margarine*, Seth Miller. 2018.

The two leading causes of whale deaths are human activities in the pursuit of profit: the fishing industry, whose ropes and gear entangle and cut whales, eventually killing them; and the shipping industry, whose vessels collide with and kill whales. Other causes of whale deaths include gas, oil and deep-sea mining^{lxxiv} industries; waterborne plastic waste; war and the war machine; strandings and climate change; all of which either kill whales outright or slowly.

Fishing industry kills whales

The biggest killer of whales is entanglement in fishing gear. “Each year, some 300,000 cetaceans (including whales, dolphins and porpoises) wind up as bycatch - meaning they are unintentionally killed or seriously injured by the fishing industry...”^{lxxv} Studies show that, once snarled, a whale can suffer a slow, painful death for as long as six months^{lxxvi} as the gear slices through flesh, deforms bone, amputates flukes, and restricts breathing, eating, and swimming as the gear drags through the water.^{lxxvii} Scientists say that “[t]hese deaths might be preventable with the adoption of ropeless fishing gear or simply weaker ropes [and cotton nets], like those used decades ago.”^{lxxviii}



An entangled whale in the North Atlantic.
Photo: PCCS/NOAA Permit #932-1905

Shipping industry kills whales

Shipping collisions with whales, also called ship strikes, are another leading cause of whale deaths. A North Atlantic right whale measures 52 feet compared to a cargo ship, which measures about 1,145 feet. So, when a cargo ship or huge cruise ship hits a whale, it’s sort of like a giant stepping on an ant; often times the crew does not notice the impaled whale on the ship’s prow until it docks. However, much smaller ships can also kill whales.



Source: Oceana

Shipping and globalization behemoth Maersk Line “moved the bulk of the world's trade volume in 2017.”^{lxxix} With over 786 vessels that travel to 116 countries, Maersk is the largest container shipping company in the world “making them potentially one of the largest single companies responsible for whale collisions.”^{lxxx} This photo shows the Maersk Norwich ship with a whale impaled on its prow in Rotterdam in 2012.



Maersk ship with a whale impaled on its prow in Rotterdam, 2012.

Source: Maersk Line

In addition to collisions, ships' propellers can also slice, mutilate, scar and/or kill whales. The following WhaleNet photo is of an endangered North Atlantic right whale, which was sliced up by ship propellers and killed in 2006.



An endangered North Atlantic right whale sliced up by ship propellers and killed in 2006.
Photo Credit: WhaleNet / Wheelock College



Whale was caught on the submerged, bulbous bow of the Grand Princess cruise ship.
Photo: Ketchikan Daily News via AP: Taylor Balkom

The cruise ship industry, an infamous polluter of the oceans and skies,^{lxxxix} also kills whales.^{lxxxix} The cruise ship Grand Princess, a 290-metre ship in the Princess Cruises fleet, killed a humpback whale in Alaska in 2017^{lxxxiii} as this photo shows. The distributor of *Secrets of Whales*, The Walt Disney Company (commonly known as Disney) has a cruise fleet that could similarly harm whales. In fact, to greenwash the expansion of its highly polluting fleet of cruise ships, Disney invests in forest offsets through the Disney Climate Solutions Fund.^{lxxxiv} So far Disney's offset projects seem like "a fantasy"^{lxxxv} in terms of emissions reductions; and have inflamed conflicts in Peru;^{lxxxvi} and been marred by violence in Cambodia.^{lxxxvii}

Oil and Gas companies kill whales

Oil and Gas companies' coastal or offshore exploration, seismic and sonar testing, operations, construction of marine pipelines, offshore platforms, coastal terminals, piers and other infrastructure; oil tankers; offshore drilling; discharges of toxic waste; pollutants and fumes; underwater noise; accidents; explosions and oil spills can harm or kill whales.

For example, the administration of George W. Bush opened up previously protected areas to oil drilling.^{lxxxviii} As a result of the subsequent wreck of the Exxon Valdez tanker and 11-million-gallon^{lxxxix} oil spill in Prince William Sound, Alaska in 1989, half a million birds^{xc} and 22 Chugach Transient orcas died.^{xc} A “single mistake on an oil tanker” set the Chugach Transient orcas on “a path toward inevitable extinction...Today, the Chugach Transient orcas are functionally extinct... 14 of 35 orcas of the resident pod were lost” as well.^{xcii} According to National Oceanic and Atmospheric Senior Biologist Gary Shigenaka, a 2019 study showed that, twenty years later, the “salmon-eating resident orca AB pod of Prince William Sound is not recovering as expected.” “[Scientists] are predicting their extinction.”^{xciii}

It is important to note that, unfortunately, whales do not detect and avoid oil spills as scientists previously thought. This photo from the Canadian Journal of Zoology taken by Craig Matkin of the North Gulf Oceanic Society,^{xciv} shows that, contrary to previous claims, orcas did not avoid the massive spill but, in fact, swam right next to the Exxon’s wrecked tanker as it spewed millions of gallons of crude into the sound.



Orcas swimming in the oil spill next to the wreck of the Exxon Valdez tanker, 1989.

Source: Canadian Journal of Zoology. Craig Matkin of the North Gulf Oceanic Society.

In 2010, President Barack Obama announced he was opening up new areas of US coastal waters to offshore drilling.^{xcv} On April 20, 2010, BP Deepwater Horizon Rig exploded spilling 210 million gallons of oil into the Gulf of Mexico – almost 20 times as much as the Exxon Valdez spill.^{xcvi} It was the worst environmental disaster in the U.S.’s history and killed eleven people, but that did not stop the Obama administration from subsequently approving millions of acres for oil and gas

exploration including in the Arctic.^{xcvii} Given the difficulties of tracking whales in large bodies of water, debate persists about how many whales the British Petroleum's Deepwater Horizon explosion and spill caused. The official number is two.^{xcviii} Scientists estimate that if the explosion had killed 3 sperm whales it could have threatened the survival of the entire sperm whale population in the Gulf of Mexico, which was already endangered.^{xcix}



*Sperm Whale near oil platform in The Gulf of Mexico.
Photo by Christoph Richter for SWSS (MMS). Source: Defenders of Wildlife.*

Not just oil spills and explosions are lethal for whales. Oil and gas exploration, drilling and operations can be as well. The last remaining critically endangered Western Pacific gray whales which number 250,^c are also being pushed to extinction by oil and gas offshore exploitation by Gazprom, Mitsui, Mitsubishi, Shell Oil,^{ci} Exxon, Sakhalin Energy, British Petroleum and Rosneft^{cii} off the coast of the Sakhalin Island in Russia's Far East. The offshore and coastal infrastructure and its noise, toxic discharge, and web of marine pipelines is reducing food sources and resulting in malnourished "skinny whales"^{ciii} and lethal ship strikes.^{civ}

The oil industry's harm to whales also includes the use of sonar which can confuse whales and result in whales getting stranded and dying. In 2008, one hundred melon-headed whales died at once in a mass stranding in the Loza Lagoon system in Madagascar.^{cv} In 2013, an independent review panel appointed by the International Whaling Commission found that a sonar system used by an ExxonMobil contractor was the most likely trigger in attracting the whales to the lagoon.^{cvi}

Whale strandings and death can also be caused by the seismic exploration and deafening airguns of oil and gas companies or their contractors. Airguns use loud blasts every ten seconds for 24 hours a day, often for weeks on end, and can travel thousands of miles.^{cvii} Other impacts include "temporary and permanent hearing loss, abandonment of habitat, disruption of mating and feeding,"^{cviii} which can be extremely harmful or fatal to whales.

Oil and gas companies' coastal and offshore blasting, drilling, dredging, pollution, and construction of infrastructure including marine pipelines, offshore platforms, terminals and refineries can also harm or even kill whales. For example, Chevron, which partners with Royal Dutch Shell and ExxonMobil,¹ is getting carbon offsets to study the harm and "mortality"^{cxix} [read death] of whales and other endangered marine species caused by the construction and operation of Chevron's own Gorgon and Wheatstone^{cx} Liquid Natural Gas plants^{cxii} in Australia. According to Chevron Australia's "Table 2.2 *Medium and High Risks to Threatened and Migratory Species from the Construction and Operation of the Marine Facilities - Fauna: Whales, Dolphins and Dugongs*: 'Shock waves, noise and vibration from underwater blasting and drilling on the east coast of Barrow Island **results in mortality** or injury (permanent and/or temporary hearing loss).'"^{cxii} [Emphasis added.]

Plastic from the oil and gas industry kills whales

Another fatal impact on whales is caused by a gas and petroleum product: plastic.^{cxiii} A recent study indicates that waterborne plastic waste may be a bigger threat to whales than oil spills or drilling.



Source: *Plastic Oceans*

According to journalist Nicole Karlis, "rising numbers of whales [are] dying across the world due to plastic consumption. Marine animals often ingest plastic waste because they mistake it for food. Once a whale has ingested the plastic, it can't be metabolized or broken down. This can cause them to become sick because of the buildup in the stomach. In this case, the whale will stop eating and ultimately starve to death... [A] sperm whale washed up on the shore in Italy with a stomach full of plastic. Likewise, microscopic plastic particles — known as microplastics — outnumber zooplankton in some parts of the ocean."^{cxiv}

War and the war machine kill whales

To state the obvious: war and the war machine kill. Such destruction of life includes killing whales. For example, the U.S. military is one of the planet's biggest polluters, polluting more than 100 countries combined.^{cxv} The U.S. military is also "the single largest institutional consumer of hydrocarbons in the world"^{cxvi} and is one of the largest military forces in history.^{cxvii} So it should come as no surprise that its activities impact whales.



Dead whale. U.S. Naval Base. 2021

Source: *ABC News 10*

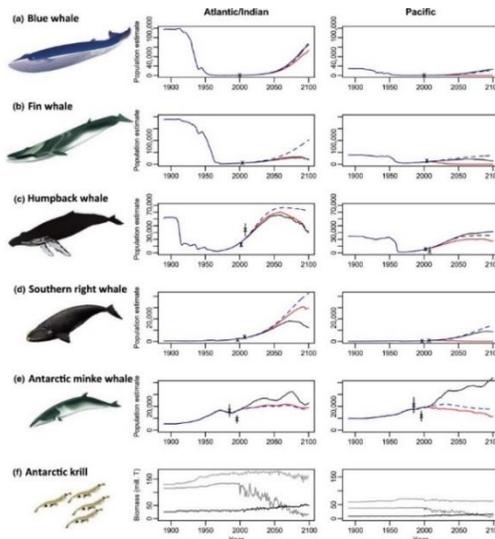
Even when being rehearsed, war kills. In the summer of 2021, two whales were killed in multinational exercises in the Pacific.^{cxviii} "An Australian Navy destroyer dragged the two dead fin whales into the U.S. Navy's base in San Diego where the animals dislodged from its hull. The Australian ship had been training offshore with American ships for weeks."^{cxix}

Just as industrial use of sonar is harmful to whales and causes strandings, so to military and naval sonar. According to marine biologist Dr. Ingrid Biedron, “naval sonar has already led to mass whale strandings, as disoriented whales attempt to escape the noise.”^{cxx} Powerful sonar blasts can “also destroy their hearing and even cause their brains to hemorrhage.”^{cxxi} Reproductive capacity and fertility can also suffer. “We know from studying their hormone levels that the loud noise from ships — and likely from other underwater noises like military sonar and industrial activity — can make [whales] chronically stressed out. As experiments in other animals have shown, chronic stress can weaken the immune system and hurt reproductive success,”^{cxxii} which lessens chances of population stability or recovery.

It is crucial to also examine the broader context of the military harming and killing whales. Isa Arriola, chair of the group Our Common Wealth 670 of Saipan in the Pacific Ocean, has said that “militarization was about more than sonar and whales...None of this can be understood without understanding indigenous dispossession and US imperialism.”^{cxxiii}

Climate change is killing whales and crashing entire whale populations

According to scientists, “future recovery of baleen whales is imperiled by climate change.”^{cxxiv} Predictions show warming in the Southern Ocean... will differentially affect southern baleen whale species, leading to population crashes of some populations and slowing the recovery of others by the end of this century. Despite initial recovery from historical whaling, models predict concerning declines under climate change, even local extinctions by 2100, for Pacific populations of blue, fin and southern right whales, and Atlantic/Indian fin and humpback whales.”^{cxxv}



Model-estimated whale population trajectories are shown for female population of (a) blue, (b) fin, (c) humpback, (d) southern right and (e) Antarctic minke whales in the Southern Hemisphere and (f) krill biomass predictions, for the Indian/Antarctic area (left) and the Pacific area (right). Source: Tulloch et al. “Future recovery of baleen whales is imperiled by climate change.”^{cxxvi}



A new study, reports that climate change is the reason that “there’s been a sudden population crash for North Atlantic right whales.^{cxxvii} According to the *New York Times*, “North Atlantic right whales had been making a slow recovery, but ocean changes linked to global warming are pushing down their numbers again.”^{cxxviii} Climate change-induced “warming ocean temperatures also move “whales’ prey closer to the shore... forcing them to pursue their food into shallow waters,” which results in strandings that all too often are fatal.^{cxxix}

Furthermore, the ocean itself is suffering from human-induced global warming. Climate-driven changes in ocean circulation are having a ripple effect. For example, changes in the Gulf Stream, which some scientist report could collapse in 10-50 years,^{cxxx} are causing an “unprecedented regime shift”^{cxxxi} in the Northwest Atlantic. According to *Oceanography*, “climate-driven changes in ocean circulation have altered the foraging environment and habitat use of right whales, reducing the population’s calving rate and exposing it to greater mortality risks from ship strikes and fishing gear entanglement.”^{cxxxii}

Fueled by increased extraction and burning of fossil fuels, climate change not only means more hurricanes, but also more oil spills. In the immediate aftermath of Hurricane Ida, several oil spills were spotted, including a substantial mile-long oil spill photographed by the National Oceanic and Atmospheric Administration near a large oil rig in the Gulf of Mexico.^{cxxxiii} And as the Exxon Valdez disaster showed, more spills can mean more polluted and dead whales and even extinction.

And who pray tell is responsible for climate change?

“Just 100 companies are responsible for 71% of global emissions,” according to the Carbon Majors Report.^{cxxxiv} “ExxonMobil, Shell, BP and Chevron are identified as among the highest emitting investor-owned companies since 1988. If fossil fuels continue to be extracted at the same rate over the next 28 years as they were between 1988 and 2017, says the report, global average temperatures would be on course to rise by 4 [degrees] Celsius by the end of the century. This is likely to have catastrophic consequences including substantial species extinction and global food scarcity risks.”^{cxxxv} These very climate criminals may use whale offsets to buy cheap permits to pollute and/or also be paid for not killing whales as part of the whale offset mechanism, even though they drive whale deaths and extinction with their operations and climate change-causing pollution.

Whale Offsets will pay Whale Killers

The diversity of whale killers has been explored at some length because whale offsets intend to pay whale killers not to kill whales. Just as forest carbon offsets pretend to pay loggers not to log (sometimes with appalling increases in deforestation);^{cxxxvi} whale offsets pretend to pay whale killers not to kill whales. The supposition is that no industry is going to avoid killing whales if it means they will lose money.



A dead one-month-old North Atlantic right whale calf. Its injuries – cuts on its back and head, a fractured upper jaw, and broken ribs – point to a ship strike as the likely cause of death. Photo: FWC, NOAA Fisheries permit #18786

For example, even though shipping giant Maersk Line's operating revenue was \$39 billion, and their ships emitted 35.5 million tons of CO₂ in 2018 and may cause whale deaths, proponents of whale offsets think Maersk should be paid and receive "financial encouragement to optimize routes around whale migration paths."^{cxxxvii} Even though changing routes and traveling slower can contribute to fewer whale deaths, instead of simply having a legally binding speed limit for shipping and no-go zones to protect whales, the whale carbon offset scheme plans to pay corporations like Maersk to do so, so their profit margin is not affected. The hype is that the destroyers of Nature can make money and pretend to save the whales and the climate at the same time!

Similarly, other probable whale killers, such as other shipping companies, cruise ship lines, oil and gas companies, the fishing industry, the military and plastics manufacturers might potentially receive funds from whale offset schemes, not to harm or kill whales.

Pay Japan not to hunt whales?

It is even plausible that Japan, which restarted commercially whaling in 2019, could be paid with whale offset moneys not to kill the 383 whales a year it is now planning to hunt as part of its legal quota.^{cxxxviii} As bizarre as it sounds, instead of protecting whales and supporting whale conservation efforts led by coastal communities, whale offsets will pay whale killers not to kill whales as they continue destroying the climate and polluting the ocean with their tankers and oil rigs. At the same time, those very same whale destroyers and other polluters can buy whale offsets to keep polluting, just like Chevron is already doing with its marine biodiversity offsets in Australia.^{cxxxix} And you are supposed to bankroll this madness annually to the tune of \$13 a year.

This following graphic maps how the IMF wants your \$13 bucks a year to subsidize whale offsets, which could increase pollution, worsen global warming and contribute to more dead whales:



And Greenpeace?

Some of us think of Greenpeace as the champions of saving the whales. Hence, one might well imagine that Greenpeace is going to lead the charge against whale offsets. However, Greenpeace-UK includes promoters of whale offsets as “Sources and further reading” on its webpage.^{cxlii} Although critical of some individual forest carbon offset projects,^{cxliii} a Greenpeace report calls for a carbon tax,^{cxliv} which is “a type of carbon pricing,”^{cxlv} a form of emissions trading and carbon markets. So, it is up to us to save the whales from the carbon market. For the moment, nobody else is stepping up to the plate.

A Global Whale Fund:

Whale killers want to be the self-appointed owners and guardians of whales

Meanwhile, whale offset proponents hope that “presenting whale conservation around economic benefits will enlist powerful organizations like the World Bank, the IMF and United Nations to help coordinate whale population recovery efforts or manage a global whale fund.”^{cxlvi} However, it is precisely the World Bank, IMF and United Nations that promote globalization based on unsustainable models of production, consumption and living; finance and subsidize extractive industries; and sell the Sky and Nature on carbon markets. The whale killers want to be the self-appointed owners and guardians of whales. This constitutes a historic theft of agency of the real whale protectors. This is unabashed confiscation of the Sacred. This is the heist of the century.

Promoter of Whale Offsets admits their worthless

Critics of the contention that whales can solve the climate crisis, reminds us that “Andy Pershing *et al.* (2010, Plos One) discussed the idea and concluded that it doesn’t really have a significant effect on the global carbon budget. The authors also suggest whale populations will likely not recover fast enough to help us with the carbon sequestration required during the next few critical decades.”^{cxlvii} Importantly, critics also note that “Roman *et al.* (2014, FEE) concluded that, ‘the contribution of whales to global fluxes of C[arbon] and nutrients is relatively small...’”^{cxlviii} In response, avid promoter of whales offsets, Steven Lutz, Blue Carbon Programme Leader for the United Nations Environment Program/GRID-Arendal, conceded that “Sure, whales may not [make] a large contribution...”^{cxlix}

So why pretend that whale offsets will work? Is it ethical to tell the world that whales are “a trillion-dollar fix to climate change!”^{cl} if in the same breath you are admitting that they are not? Why is the United Nations, 41 countries, and the International Monetary Fund and “conservation” groups promoting whale offsets if they are bogus? Are they just trying to harness the tremendous appeal of whales, one of the world’s most charismatic species, to give the global carbon market a sheen of legitimacy? Disgusting! *Save the whales to fight climate change by*



putting whales in the carbon market is a brilliant PR strategy to promote the global carbon market, but it is a cynical lie.

WTO and UN admit that Nature cannot absorb anymore carbon

Furthermore, the World Trade Organization and the United Nations candidly admit that Nature cannot absorb increasing greenhouse gas emissions, because the capacity of terrestrial ecosystems and the oceans to absorb carbon dioxide is plummeting.^{cli} For example, the capacity of the North Atlantic to absorb CO₂ has decreased by about 50% in the course of a decade.^{clii} According to the joint report of the World Trade Organization and the United Nations Environment Program entitled *Trade and Climate Change*:^{cliii}

Another area where recent studies suggest that the climate system may be responding more quickly than climate models predicted is on the capacity of the oceans to absorb carbon dioxide. For instance, although the IPCC [Intergovernmental Panel on Climate Change] (2007c) concludes that the **capacity of the oceans and the terrestrial biosphere to absorb the increasing carbon dioxide emissions would decrease** over time, Canadell *et al.* (2007) find that **the absorptive capacity of the oceans has been falling more rapidly than the rates predicted** by the main models used by the IPCC. This finding is mirrored by Schuster and Watson (2007), whose results suggest that the **North Atlantic uptake of CO₂ declined by approximately 50 per cent between the mid-1990s and 2002-2005...**

Until now, the oceans have been absorbing over 80 per cent of the heat being added to the climate system (IPCC, 2007a), and sequestered 25-30 per cent of the annual global emissions of CO₂ (Le Quéré *et al.*, 2007). However, if the above-mentioned decline in the oceans' capacity to absorb carbon dioxide carries on, and that trend continues on a global scale, a **significantly greater proportion of emitted carbon will remain in the atmosphere, and will exacerbate future warming** trends (Levin and Pershing, 2008). [Emphasis added.]

There you have it. From the horse's mouth, the Sky Sellers are admitting that not only can Nature not absorb any more of our global warming-causing pollution, Nature is absorbing significantly less than She used to. Therefore, offsets are complete nonsense. We absolutely must cut emissions at source. Period.

Whale offsets could speed up the extinction of whales

Putting Nature into carbon markets in the form of forest carbon offsets and REDD (Reducing Emissions from Deforestation and Degradation), a model for whale offsets, has been an utter disaster for the climate, forests, Indigenous Peoples, forest-dwelling communities, human rights



and even for some investors.^{cliv} Putting whales into the carbon market will be a disaster, too. In fact, it might even speed up whales' extinction by creating "perverse incentives."^{clv} Perverse incentives result when destroyers of Nature, such as logging companies, destroy more to raise the rate of destruction to get more carbon market money to supposedly not destroy.^{clvi} Paying those entities that harm or kill whales could result in perverse incentives to harm or kill more whales to get paid more.

Privatizing Nature

Just as to sell the carbon stored in a tree, a carbon trader may grab, own, privatize, control, guard, patrol, fence and maybe even militarize^{clvii} the forest and land where it grows for a hundred years^{clviii} or more, to buy and sell the carbon stored in whales, a carbon trader may grab, own, privatize, control, guard, patrol and maybe even militarize whales and the oceans and coasts where whales live, migrate, feed, breed, calve and hunt.

Planet Grab, Ocean Grab

The United Nations, countries, and "conservation" NGOs initially want to use "half the Earth's land and oceans"^{clix} for offsets under a variety of land and ocean grabbing umbrellas with names like Nature Based Solutions, Natural Climate Solutions and Global Deal for Nature.^{clx} The Blue Economy and Ocean-Based Climate Solutions specifically target the oceans, which cover 71% of the planet.^{clxi} The global carbon market's land grab seems to be dovetailing with the emerging global carbon market's ocean grab. What land, coasts and oceans are going to be left for the peoples of the world?

US Congress Ocean-Based Climate Solutions Act

Regardless of how farfetched whale offsets may seem, rapid strides are already being made to codify whale offsets and the inclusion of oceans in carbon markets^{clxii} into both national and international law. The Ocean-Based Climate Solutions Act in the U.S. Congress was introduced by Representative Raul Grijalva (D-Arizona) on World Oceans Day, June 8, 2021.^{clxiii} On page 9, the Act proposes to: "Assist in exploration of the potential for a market for carbon credits." On page 10, it aims to: "Develop and use protocols for inclusion of blue carbon projects [including whale offsets] in carbon markets." Carbon markets are not just national, they are also international. Which brings us to the United Nations climate change Paris Agreement, the international instrument that serves to link regional and national carbon markets and build the global carbon market.

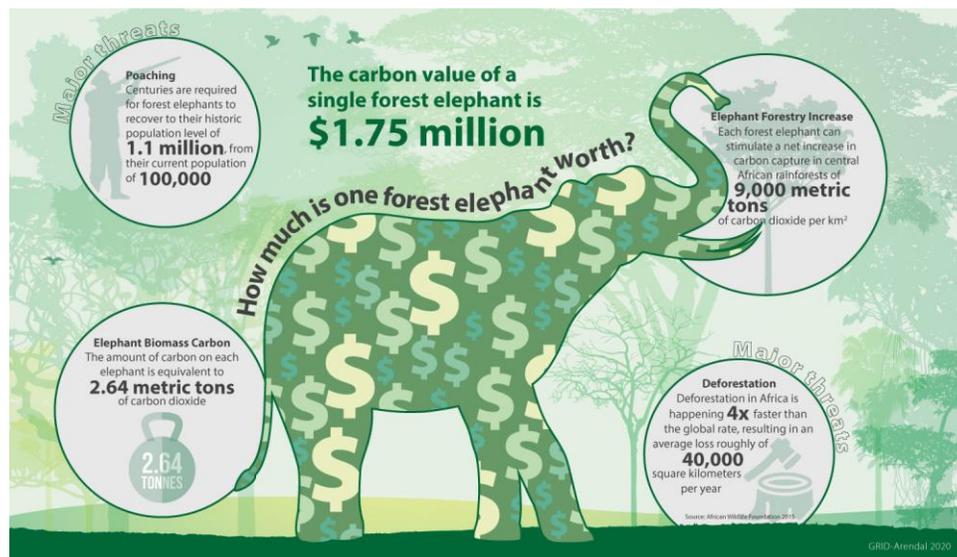
Include whale offsets in the objectives of the United Nations Paris Agreement?

The International Monetary Fund's study, "Nature's Solution to Climate Change - *A strategy to protect whales can limit greenhouse gases and global warming*" concludes that whale protection must now become a top priority in the global effort to tackle climate change. "Since the role of

whales is irreplaceable in mitigating and building resilience to climate change, their survival should be integrated into the objectives of the 190 countries that in 2015 signed the Paris Agreement for combating climate risk.”^{clxiv} Some see the next climate summit as just the place to do so. “Later this year, the UN climate conference will take place in Scotland, a country whose coasts regularly host species like minke and humpback whales. With a carbon market for whales now a real possibility, perhaps it's time to put these creatures on the agenda.”^{clxv}

The elephant offset in the room

Other big mammals are also slated for inclusion in the carbon market. Elephant offsets are also being proposed by the International Monetary Fund.^{clxvi} The next United Nations climate change summit may try to further the inclusion of both whale and elephant offsets into carbon markets. Whether the summit is in-person, virtual or some hybrid of the two, the United Nations needs to be told to keep its hands off of whales, elephants and Nature as a whole.



Source: International Monetary Fund/ GRID-Arendal

Putting Marvel Comics to shame

Would that the privatization and commodification of whales and elephants for carbon markets and the Green Economy was a horror movie about the end of the world that we could simply turn off. The villains and their plan are daunting: National Geographic cloaked in pretty photos but infamous among Indigenous Peoples for its “vampire project;”^{clxvii} and the sugarcoated, mind-numbing, entertainment goliath, king of cartoons, Disney in cahoots with the International Monetary Fund, that pillar of rabid capitalism, and the WTO (World Thieves Organization) to promote a ghastly strategy to reduce whales to carbon sinks and sell the Sky to polluters. Unfortunately, this is all too real.



<https://globaljusticeecology.org/whale-offsets/>



It is easy to feel overwhelmed, but that is a luxury we can't afford. The luminous and renowned Native human rights and environmental activist, singer and actor Nilak Butler once said "We can't allow ourselves to be confused or feel powerless... Each of us has something we can bring to strengthen Life's circle."^{clxviii}

Take heart! The good thing about false solutions to climate change is that they are so absurd that once we see through them, we can stop them. Help save the whales from the carbon market. Share this information and your outrage. Denounce carbon trading and offsets of any kind by any name. Demand emission cuts at source and a new paradigm. The whales are counting on you.



Photo: Getty



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Identification and improved management of critical habitat for threatened marine species 1) humpback whales; 2) dugongs; and 3) snubfin dolphins in Pilbara waters - Chevron Australia (Wheatstone)

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