
Towards a Framework for Nature-Based, Sustainable and Inclusive Economic Paradigm

Panel 1: Climate Change and Sustainable Development

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The views expressed in this presentation are those of the author and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

A New Story: Win-Win Model

Economic Paradigm with Nature at its core

Economic prosperity that is Sustainable, Inclusive, and
Nature Friendly



The Current Story: Win-Lose Model

Nature is an externality

Nature is free and limitless

Climate Change and Covid-19 crisis

Deaths of over 3 million and rising

Loss of 5.5 % of global growth

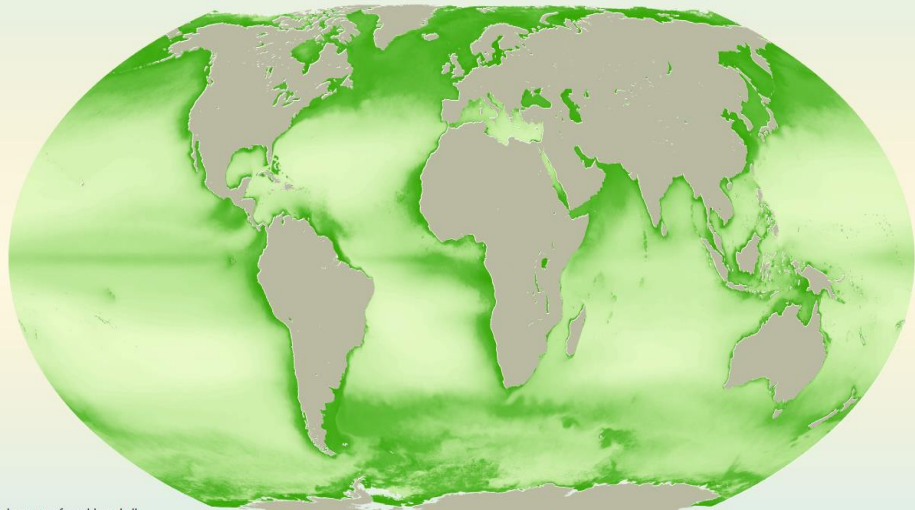
Millions more pushed into poverty and destitution

The “hard” Lesson:

Nature is critical to our Health and to our Prosperity

Science tells us: Biodiversity is Valuable

Phytoplankton is responsible for every other breath



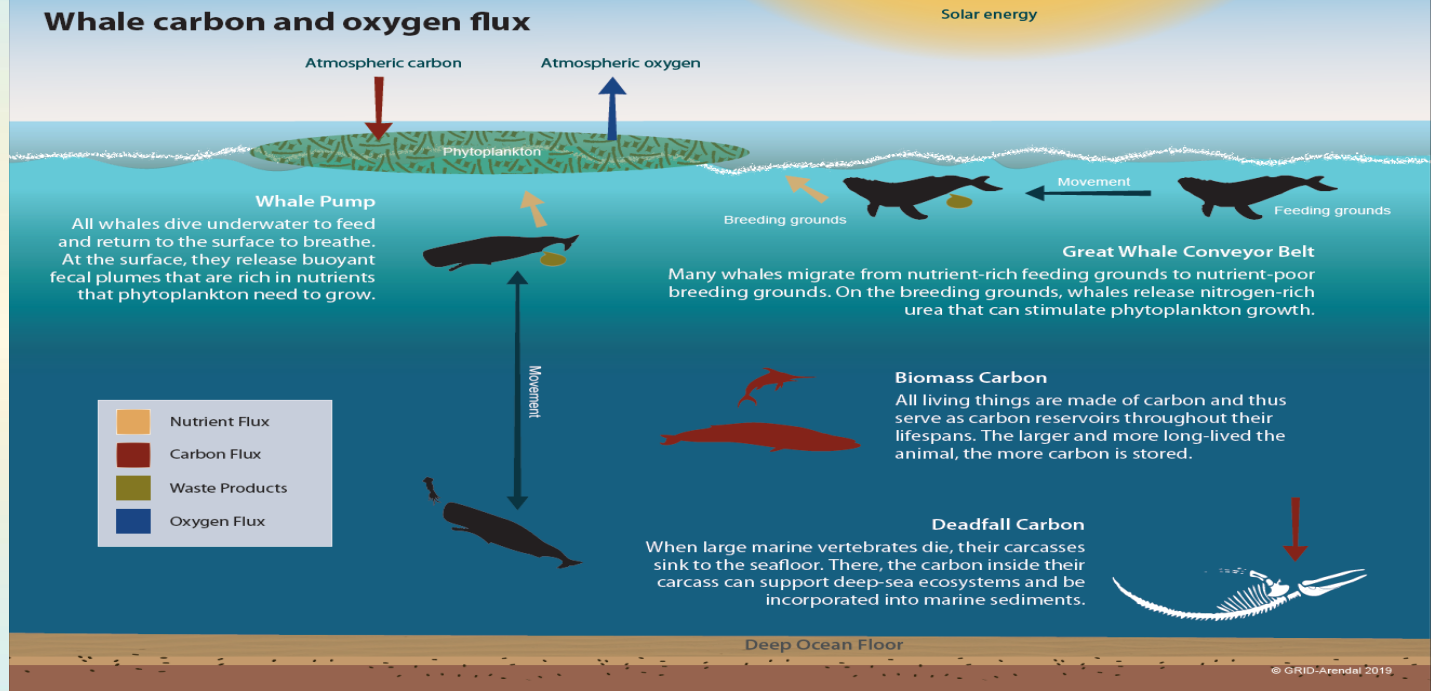
Map of global ocean surface chlorophyll concentration. Chlorophyll concentration (mg/m³) is an indication of the density of photosynthetic organisms, such as phytoplankton.

High Low

Source: SeaWiFS Project, NASA, composite data set 1997-2010.

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Whale carbon and oxygen flux



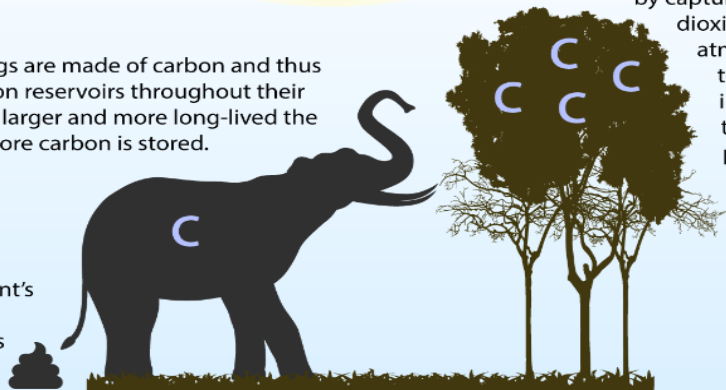
Solar energy

Forest Elephant Carbon

All living things are made of carbon and thus serve as carbon reservoirs throughout their lifespans. The larger and more long-lived the animal, the more carbon is stored.

Forests sequester carbon by capturing carbon dioxide from the atmosphere and transforming it into biomass through photosynthesis

Forest Elephant's fecal material fertilize plants



While moving through the forest and foraging for food, elephants reduce the density of smaller trees and plants, leading to an increase in the proportion of larger trees, which leads to more carbon being stored in the forest.

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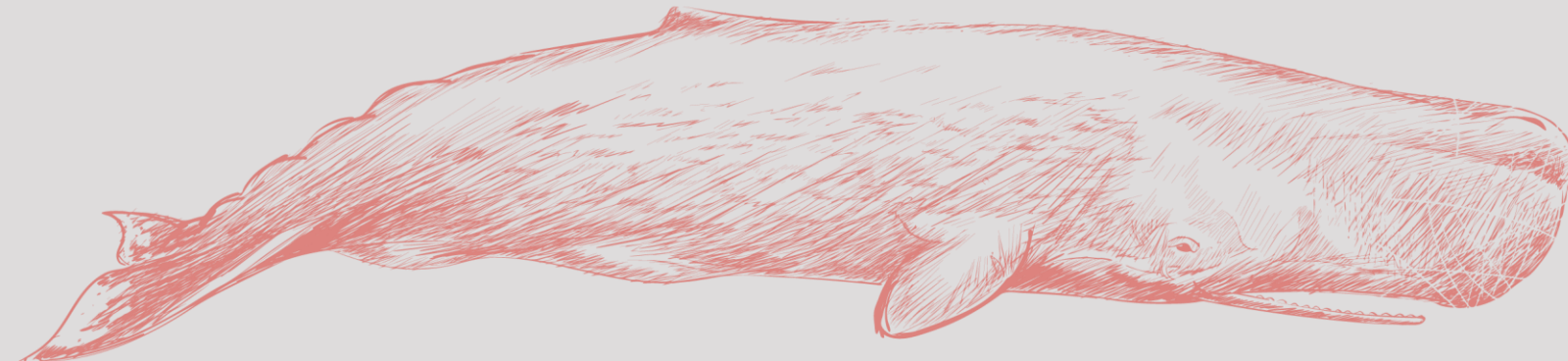


Saltmarshes capture 5 tonnes of CO₂ /h/y and are flood control

Yet

Market value of ecosystem service of a **Living whale** is **zero**,
Dead whale is worth \$40,000-\$80,000

Market Value of carbon sequestration service of a **Living Elephant** is **zero**, **Dead**
Elephant is worth \$10,00-\$40,000



What's missing?

Translate value to Price

Placing a market value on these ecosystem services

To engage policymakers, financial markets, businesses, and investors

A **Living** Nature is Valuable

Ecosystem Services

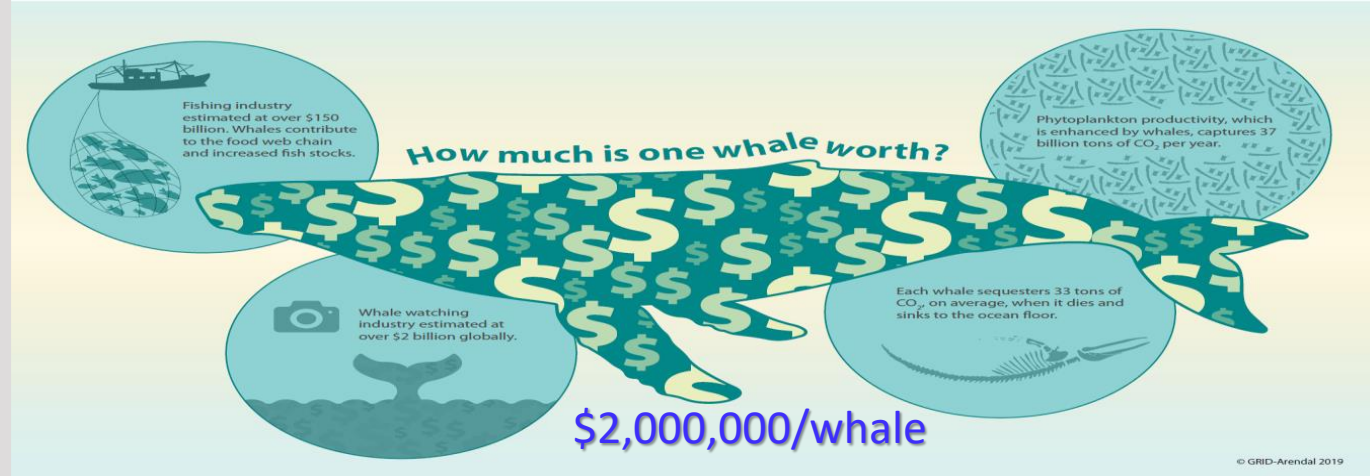
Climate change Mitigation

Paradigm Shift:

From Extractive to Regenerative Nature

- COP 25:

Ocean essential to mitigating climate change



\$140,000/Hectare

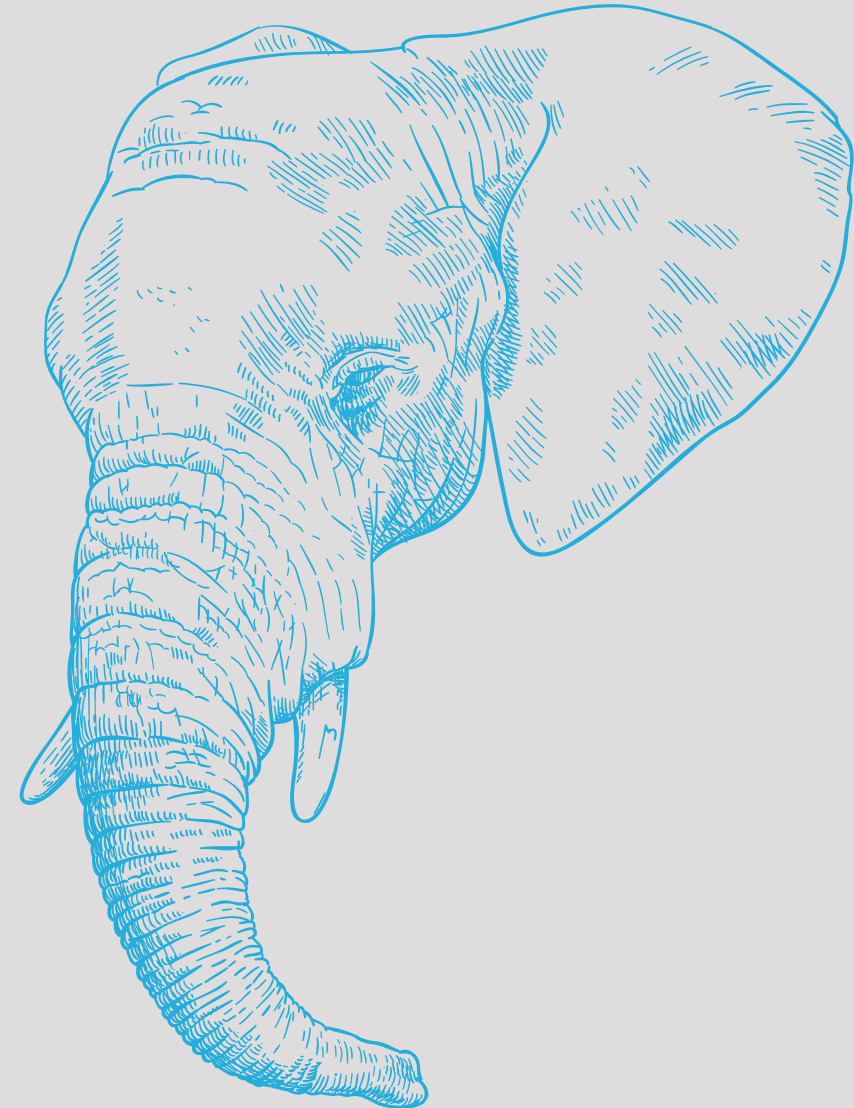
But... Nature is still Under Threat

African forest elephants are now on IUCN critically endangered list.

One million species are now at risk of disappearing (IPBES, 2019)

Forests: 1990-2016 -- 1.3 million square kilometers (size of South Africa) of forest lost (World Bank)

Blue Carbon Ecosystems Loss – 340,000-980,000 ha annually (Reef Resilience Network)



Policy Needed to Create Markets around Regeneration of Nature



LEGAL RIGHTS

MONITORING

ENFORCEMENT

INCENTIVES

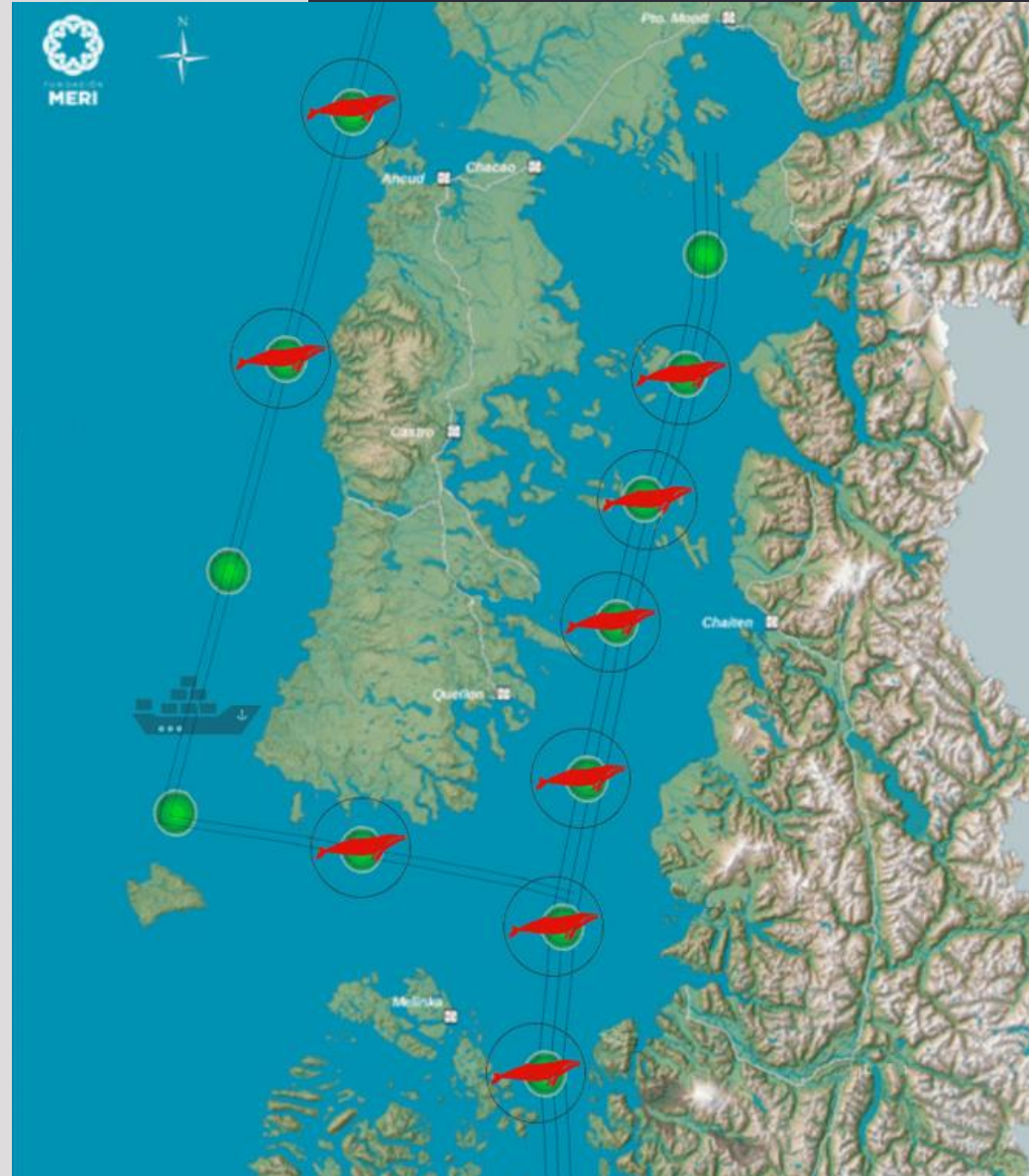
The Blue BOAT Initiative

It seeks to:

Protect whales and monitor the oceans to address the climate crisis.

- **Install and connect the first South American early warning network for the protection of whales.**
- **Pilot project in Northern Patagonia**, the area with the highest concentration of blue whales and other cetacean species in Chile.
- To contribute to the care of cetaceans in Chile, avoiding the risks of collision between vessels and cetaceans and valuing the ecosystem services of these cetaceans.

The system will also allow monitoring oceanographic factors that affect climate change.



Buoy
Ocean
Alert
Technology



Legal Rights of Nature

New Zealand recognizes Whanganui River and Forests as a legal entity, an “indivisible and living whole” with legal personhood

2012 UN resolution by IUCN for the
Universal Declaration of the Rights of Nature

Value of Natural Capital to our Economic Well-Being



VALUATION OF NATURAL SERVICES

ESTABLISH LEGAL RIGHTS/PROTECTION

ALLOWS PUBLIC-PRIVATE PARTNERSHIPS

CREATES LOCAL EMPLOYMENT

ENCOURAGES COMMUNITY OWNERSHIP

DIVERSIFIES THE ECONOMY

Final Chapter A Win-Win Model

**The sustainability of
our economic system
depends on the
sustainability of our
ecosystems and
biodiversity**

**Creating Markets
for Services of
Living Nature**

**Leads to economic
prosperity that is
sustainable,
inclusive, and
nature friendly**

THANK YOU

