THE OCEAN IN CRISIS

Subjected to multiple human induced stressors from over-fishing and pollution, to acidification and global warming. The Ocean is under the most unprecedented threat in human history.

In the face of threats of this magnitude, it is time to mount a bold response.
The ocean – sustaining life on earth

THE OCEAN – covering over 70% of the planet’s surface, driving weather systems, creating at least half of the oxygen in our atmosphere, regulating temperatures and dominating the global water and carbon cycles – is critical in enabling life to exist on Earth.

Yet at this Earth System Level – the level of the Earth as a whole – the Ocean and the life within it are the least understood components of our planet.

THE OCEAN IN CRISIS

• Increased temperatures in the Ocean have been detected down to a depth of more than 3,000m.
• Since 1978, summer sea ice in the Arctic has decreased by 7.4% per decade.
• Carbon dioxide absorption has caused a reduction in ocean pH levels, increasing its acidity.
• 75% of the global fish stocks that have been assessed are fully exploited, over-exploited or depleted.
• Iconic marine species such as sharks and corals are disappearing from the Ocean.
• Ocean ‘dead zones’ are spreading.

The Ocean is under the most unprecedented threat in human history.

Subjected to multiple human induced stressors from over-fishing and pollution, to acidification and global warming, the Ocean is in a critical condition.

In the face of threats of this magnitude, it is time to mount a bold response.

A NEW RESPONSE

Key to achieving a breakthrough in the protection of the Ocean is to unlock a greater understanding of it at the Earth System level including all its components from species to entire ecosystems. This has never been done before.
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**SCIENTIFIC INITIATIVE**
A new initiative driven by Scientists will undertake an Earth System examination of the Ocean to understand how it functions at a planetary ecosystem level; the cumulative impact of the pressures exerted upon it and the consequences of these for life on earth including humankind.

Using new scientific research and new forms of synthesis, this project is guided by the leading marine scientists of our generation.

**New understanding**
The aim of the initiative is to elevate humankind’s understanding and management of the Ocean in order to drive effective policies and practices designed to protect the Ocean and to redress the critical state of its health.

It is a bold undertaking and the production of the first Global State of the Oceans Report – the primary output for this initiative – will take three years to complete and will be updated regularly in the future.

Once completed, however, the world will know, for the first time, how all the parts of the Ocean – from individual species and ecosystems, to the different stretches of the Ocean around the world – interrelate and cooperate to sustain life on Earth.

For the first time, we will understand the cumulative impacts of over-fishing, pollution, shipping, extraction, acidification and warming on the health of individual species as well as on the Ocean a whole.

Armed with this knowledge, humankind can better determine how to manage this global resource, what policies and approaches are required to redress and maintain the health of our Ocean and can begin to balance the many demands made upon it – not just between different kinds of fishing or shipping, or as a dumping ground for the world’s pollution but between these and the services it provides to humankind in maintaining a habitable planet.

**IPSO IS A NOT FOR PROFIT INITIATIVE WITH THE FOLLOWING OBJECTIVES:**

1. To synthesize existing science and enable new research which will result in the production of the peer reviewed *Global State of the Oceans Report*. The Report will advance understanding of how The Ocean functions at an Earth System level.

2. To enable participation in the programme by scientists from all regions of the world.

3. To enable consequences of individual and multiple anthropogenic and natural stressors to be understood at the species, ecosystem, ocean and Earth System levels.

4. To provide clear and independent assessment of current exploitation and management practices and to predict medium to long term consequences.

5. To provide independent and unbiased guidance for improving ocean conservation and management.

6. To raise awareness of the Ocean at an Earth System level, its contribution to humankind and the measures necessary to preserve, protect and redress its natural diversity, structure, function and resilience.
THE FOLLOWING MARINE SCIENTISTS FORM THE STEERING COMMITTEE FOR THE INITIATIVE:

DR ALEX ROGERS – Scientific Director IPSO.
Senior Research Fellow, Institute of Zoology, Zoological Society of London, London, UK.

PROFESSOR ANDREW CLARKE – Individual Merit Scientist at British Antarctic Survey, Cambridge, UK.

PROFESSOR TONY KOSLOW – Research Professor at Scripps Institute of Oceanography and Director of the California Cooperative Oceanic Fisheries Investigations, US.

PROFESSOR DANIEL PAULY – Director of the Fisheries Centre, University of British Columbia, Vancouver, Canada, and Head of the Sea Around Us Project.

PROFESSOR NICHOLAS POLUNIN – School of Marine Science & Technology, University of Newcastle, UK. Editor of the Journal Environmental Conservation.

PROFESSOR CALLUM ROBERTS – Professor of Marine Conservation, University of York, UK. (Soon to be Executive Director of Bigelow Marine Laboratory, Maine, USA.) Pew Fellow in Marine Conservation.

PROFESSOR GRAHAM SHIMMIELD – Director of the Scottish Association for Marine Science, University of the Highlands and Islands, Dunstaffnage Marine Laboratory, Argyll, Scotland, UK.

PROFESSOR CRAIG SMITH – Professor at University of Hawaii at Manoa, US. Pew Fellow in marine conservation.

KRISTINA GJERDE – Expert on ocean law, World Conservation Union, Gland, Switzerland.

PIPPA GRAVESTOCK – Expert on socio-economics of the exploitation of marine resources, University of York, UK

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