

UN GESAMP WORKING GROUP 38 THE ATMOSPHERIC INPUT OF CHEMICALS TO THE OCEANS

Annual Report to SCOR by the Co-Chairmen of
GESAMP Working Group 38
Robert Duce and Timothy Jickells

The main activity we report on this year is the successful delivery of a workshop planned for several years and delayed by COVID

International Workshop: Potential role of atmospheric deposition in driving ocean productivity in the Southwest Indian Ocean

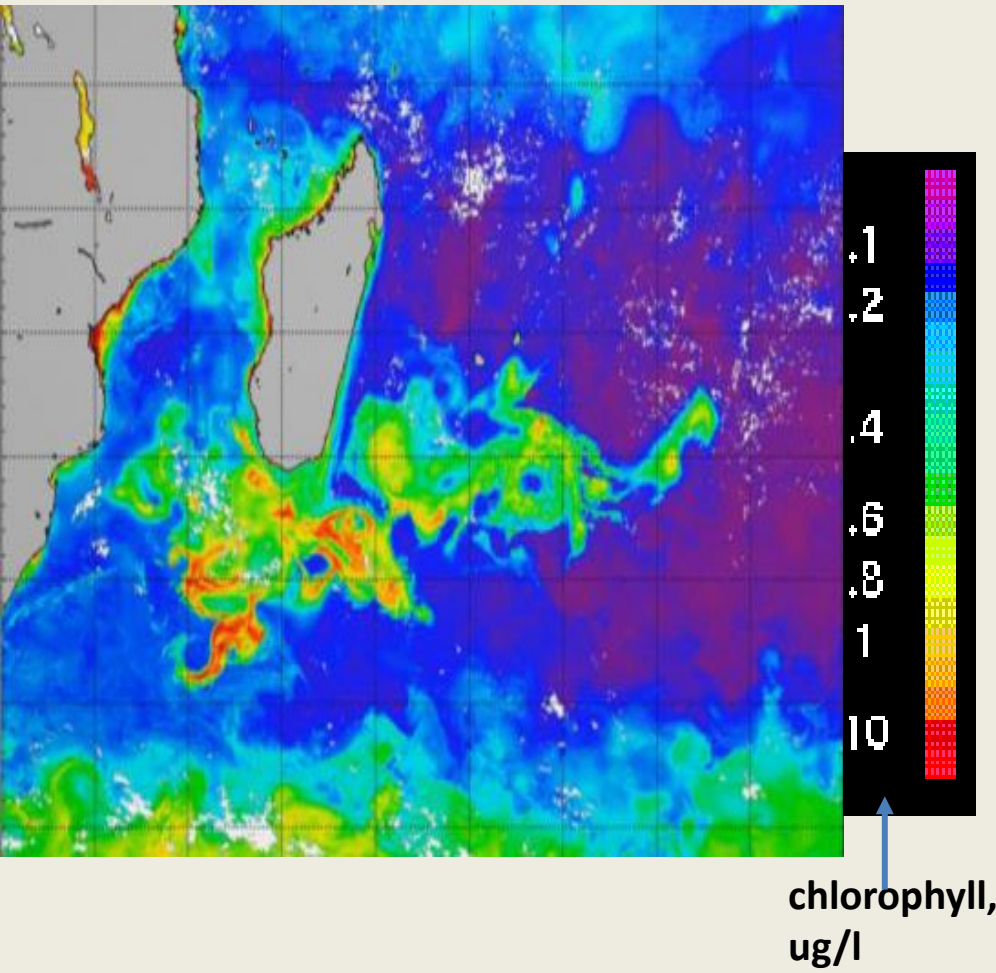
Venue: Conference Centre Ocean Science Campus Nelson Mandela University, Gqeberha (Port Elizabeth) South Africa : 4-7 October 2022

Sponsors:



SCOR Oct 2023

The Southern Indian Ocean is a region where many millions of people depend on fishing for an important part of their nutrition.

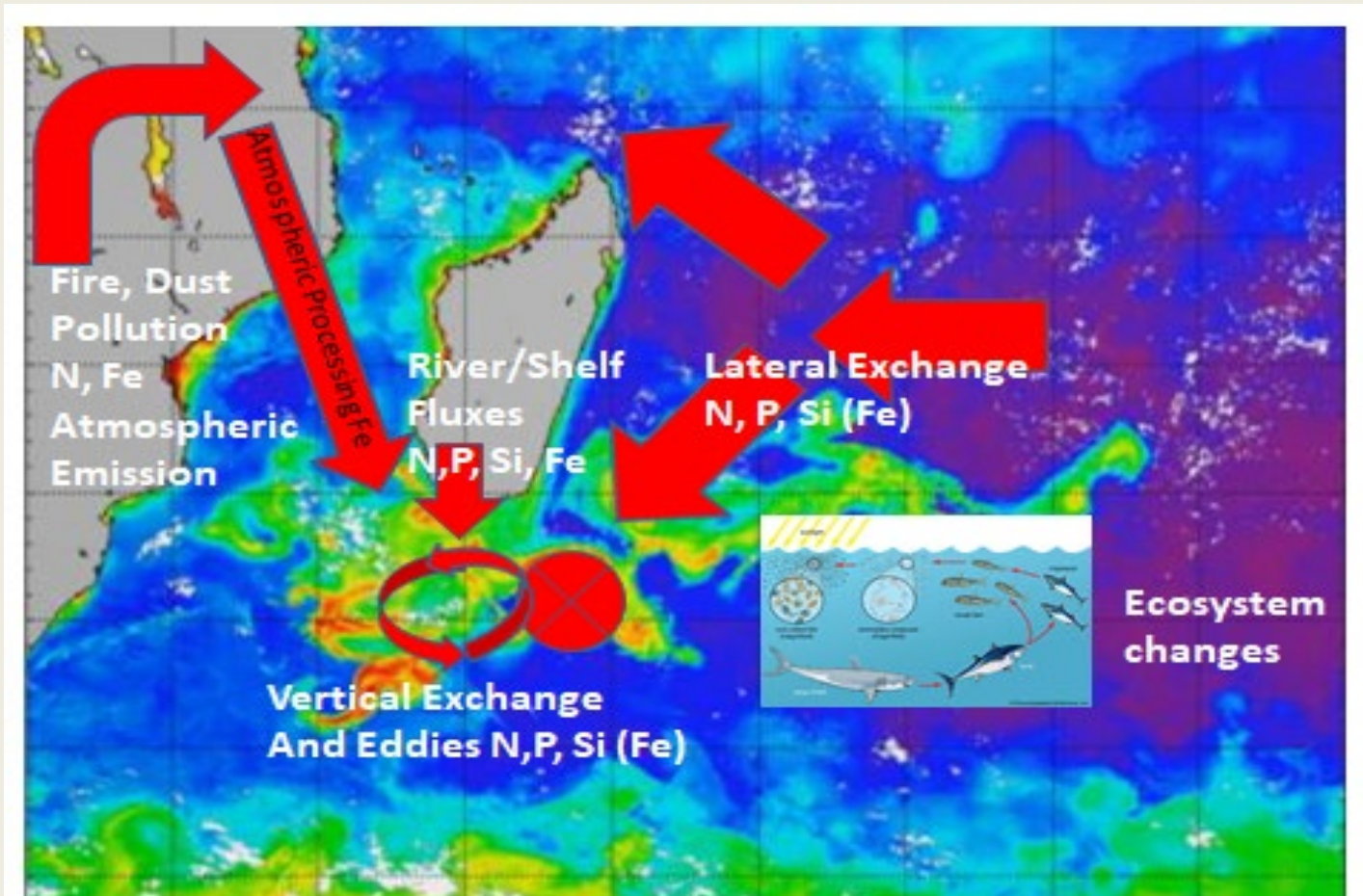


Model projections and data to date all suggest that climate change will reduce ocean productivity in this region.

However, in the region south of Madagascar large-scale blooms periodically occur in late summer and these may be increasing.

These blooms have the potential to affect food security and the economics of fishing in this region.

The workshop aimed to try and understand the drivers of these blooms, particularly in terms of nutrient supply, and how the blooms may change in the future. A particular focus of the workshop was the potential importance of atmospheric nutrient transport to the bloom region from southern Africa.



In addition to the focus on the bloom drivers, the workshop had an additional capacity building and policy development focus

Day 1 - Capacity building. A day of talks and discussions on the regional controls on productivity with regionally based early career scientists who then participated fully in the rest of the workshop.

Day 2 and 3 - Examination of the Madagascar bloom drivers.

Day 4 - A discussion with regional marine policymakers using the workshop outcomes to test adaptive management concepts.



Overall there were 48 participants from 18 countries. The outcomes of the meeting are now being prepared for publication in the scientific literature with one paper planned on the biogeochemistry of the bloom and a second on the workshop process as a case study of interactions with policymakers.