

Building on 20 years of ocean acidification research, how do we turn this science knowledge into political and social action?

STEVE WIDDICOMBE¹

¹ *Plymouth Marine Laboratory*

The Ocean absorbs 30% of the CO₂ emitted by humans every year, changing seawater carbonate chemistry. Known as ocean acidification (OA), this change is being monitored at a growing number of sites globally and evidence for rapid acidification, particularly in coastal seas, now exists. OA will have significant impacts on the health and performance of many marine organisms, the structure and function of marine ecosystems and the provision of marine goods and services. To mitigate for, and adapt to, OA impacts, society requires robust and reliable evidence and predictions from the ocean science community. Providing this in a timely and accessible manner requires greater coordination, collaboration and priority setting across the whole ocean community, including scientists, decision makers, ocean users and the public. At an intergovernmental level, OA evidence will need to contribute to achieving SDG target 14.3 and the Global Biodiversity Framework Target 8. While at national level, the creation of Ocean Acidification Action Plans will require robust OA evidence. To meet this challenge, Ocean Acidification Research for Sustainability (OARS), is an endorsed programme of the UN Decade of Ocean Science and builds on the foundation work of the Global Ocean Acidification Observing Network (GOA-ON). Through the delivery of seven outcomes, OARS will identify and encourage actions that generate the high-quality OA knowledge and data required and help deliver that evidence to inform decision making and underpin behavioural change in individuals, local communities and countries.