



ALLIANCE

INTERNATIONAL ALLIANCE TO
COMBAT OCEAN ACIDIFICATION

CASE STUDY: **NETHERLANDS** ACTION PLAN



OA MEMBER: NETHERLANDS



MEMBER TYPE:
GOVERNMENT MEMBER

POINT OF CONTACT:

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LOCATION:



CONTINENT:
EUROPE

OCEAN BASIN:
ATLANTIC

POPULATION SIZE:
17,400,000

KILOMETERS OF COASTLINE:



1,210 km

REGIONALLY SIGNIFICANT MARINE ECOSYSTEMS:



REGIONALLY SIGNIFICANT USES OF RESOURCES:

Eco-tourism

Coastal
tourism

Aquaculture

Commercial
fisheries

Artisanal or
subsistence
fisheries

Cultural
practices or
traditions

THE OA ACTION PLAN WAS COMMISSIONED THROUGH:

MINISTRY, COUNCIL OR DEPARTMENT
DECISION TRIGGERED BY OA
ALLIANCE MEMBERSHIP

ADVANCING OA ACTION PLANNING

Main reason why an OA Action Plan was created/ decided to work on ocean acidification:

The Government of the Netherlands joined the OA Alliance at the Global Climate Action Summit in San Francisco on September 13, 2018. OA is one of several important stressors of ocean health. It is a global issue, surpassing the ability of any one state to address it in isolation. On the contrary, it requires a concerted action by the global community to address its cause (anthropogenic CO₂ emissions) and its effects.

The impacts of OA are little understood, but potentially extremely serious both in ecological and economical terms. The fact that ocean acidification does not operate in isolation, but is part of a set of little understood stressors, like ocean warming, eutrophication and anoxia, chemical and plastic pollution, (unsustainable) fisheries and invasive species, to name but a few, makes it even more difficult to understand its impact and possible courses of action.

This insight prompted the Netherlands to join hands with many other actors within the OA Alliance.

Body that approved the final set of recommendations:

The Ministry of Infrastructure and Water Management of the Netherlands requested the Royal Netherlands Institute for Sea Research (NIOZ) to prepare an overview of ocean acidification and its causes and consequences. The resulting publication “Causes and Consequences of Ocean Acidification with special emphasis on the Dutch territorial waters” was published in 2018.

OA Action Plan policy context:

OA Action Plan in the Netherlands is an independent plan.

Partners involved in helping to draft or conceive the OA Action Plan:

- Academic institutions
- Government or municipal departments
- Monitoring and science networks

PRIORITIES & RECOMMENDATIONS

OA Alliance Toolkit themes included in the Action Plan:



Highlights from the OA Action Plan that are unique to jurisdiction/regional context:

The Dutch government considers raising the awareness of, and scientific knowledge about, ocean acidification as an important part of the drive to achieve emissions reduction, healthy and productive oceans and biodiversity targets that it is committed to through multilateral agreements. As such, the Netherlands will support initiatives to raise awareness and scientific understanding of mechanism and actions to mitigate the impact of ocean acidification in multilateral negotiations. The aforementioned support and activities in OSPAR, the GOA-ON hub and others reflect this.

Key aspects of the Dutch OA Action Plan include:

- Develop dialogue with knowledge partners:
- Build and share our knowledge base
- Improve monitoring and data sharing
- Reduce GHG emissions with 49% by 2030
- Realize Good Environmental Status in national waters
- Reduce anthropogenic pressures on coral
- Improve ocean literacy
- Support international initiatives to raise awareness and mitigate impact

MEASURES OF SUCCESS, CHALLENGES & LESSONS LEARNED

Main challenges encountered while drafting the OA Action Plan:

The North Sea is a shallow coastal sea and acidification is not straightforward and linear in relation to atmospheric $p\text{CO}_2$, but fluctuates seasonally and depending on biological productivity and the influx of river and North Atlantic waters. Long term monitoring will help better understand the relation between acidification and other processes in the North Sea.

The issue is at least as complicated in the Caribbean Dutch waters, in view of limited understanding of the local marine chemistry. However, the coral systems surrounding the Caribbean territories are under immense pressure of a variety of stressors like eutrophication, limited water treatment, soil erosion and unsustainable fisheries.

Improving the resilience of these essential ecosystems is an urgent task and the Netherlands is currently working with local authorities on for instance the reduction of erosion (through the control of invasive and feral species) and water quality improvement.

What will success look like in 5 years?

The Netherlands is party to the Paris Climate Agreement and committed to the UN 2030 Agenda for Sustainable Development.

The Nationally Determined Contribution (NDC) of the EU sets an emission reduction target of at least 40% by 2030 but the Netherlands is aiming at 49%. A Climate Law has recently been adopted by parliament which sets a 95% reduction goal for 2050.

The European Union Marine Strategy Framework Directive (MSFD), obliges Member States to achieve and/or maintain good environmental status of their national marine waters and to take measures to meet the established criteria. The 2017 MSFD revised strategy includes the criteria and methodological standards on Good Environmental Status of marine waters. Annex III of the revised strategy mentions $p\text{CO}_2$ and pH specifically as possible parameters relevant for monitoring in relation to ecosystem elements, anthropogenic pressures and human activities relevant to marine waters.

Financial investments/ commitments made to help advance proposed recommendations to-date:

The Dutch Marine Strategy (the transposition of the EU Marine Strategy Framework Directive) defines ocean acidification as an extraordinary pressure. The pH is included in the regular monitoring programs under the strategy, and it recognized that a second indicator will be needed in order to adequately monitor the impact of acidification.⁷ The Netherlands supports the joint development by the OSPAR Commission (for protection and conserving the North-East Atlantic and its resources) and ICES (the International Council for Exploration of the Seas) of guidance on this second indicator, in order to come to a coordinated choice for joint monitoring.

In 2018 the Netherlands was one of the parties to establish an intersessional correspondence group (ICG) on acidification within the OSPAR framework. Its concluding statements will be incorporated in the OSPAR 2023 Quality Status Report.

Additional highlights from the experience developing an OA Action Plan:

Improved knowledge of the consequences of ocean acidification not only serves to build the case for mitigation, but is equally important to understand what possible action agenda we can develop in response to it. Building and sharing our knowledge base, from monitoring of ocean chemistry to understanding of impacts on ecosystems and food webs, in isolation and as part of a cocktail of stressors, is the only way to respond to the urgency of the challenge.



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Learn more about how you can advance climate-ocean action
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This case study was published on 2018.
However, please note that climate-ocean commitments, policies, and priorities are dynamic. They are responsive to new information, administration changes and funding. Activities reflected here may have changed or evolved since the time of this publication.