

# Sea Change Australia

Co-developing pathways to mitigate and adapt to a changing climate for fisheries and aquaculture in Australia

(FRDC Project no. 2023-011)



Centre for Marine Socioecology, and Institute for Marine and Antarctic Studies (both at UTAS), CSIRO, Department of Primary Industries and Regional Development (DPIRD), NRE Tasmania & other agencies around Australia



**SEA CHANGE**  
AUSTRALIA

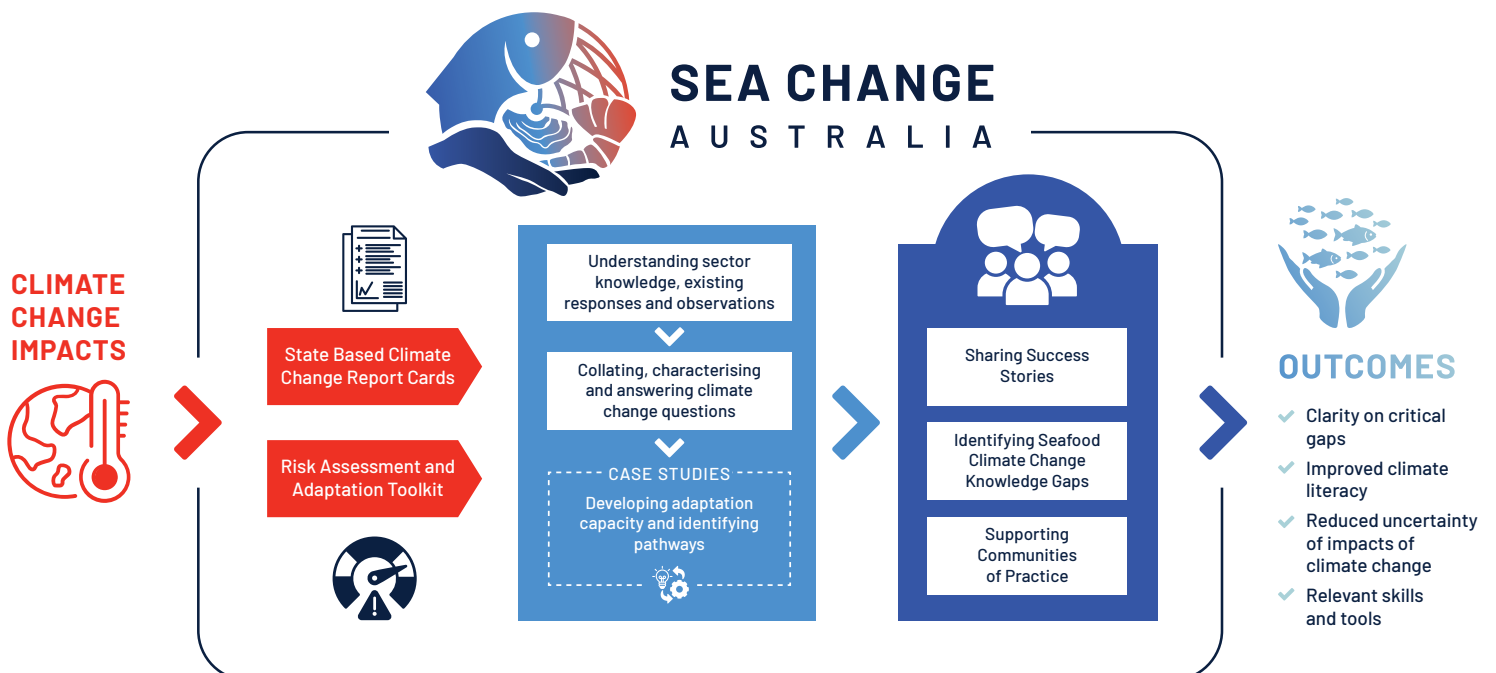
# PROJECT SUMMARY

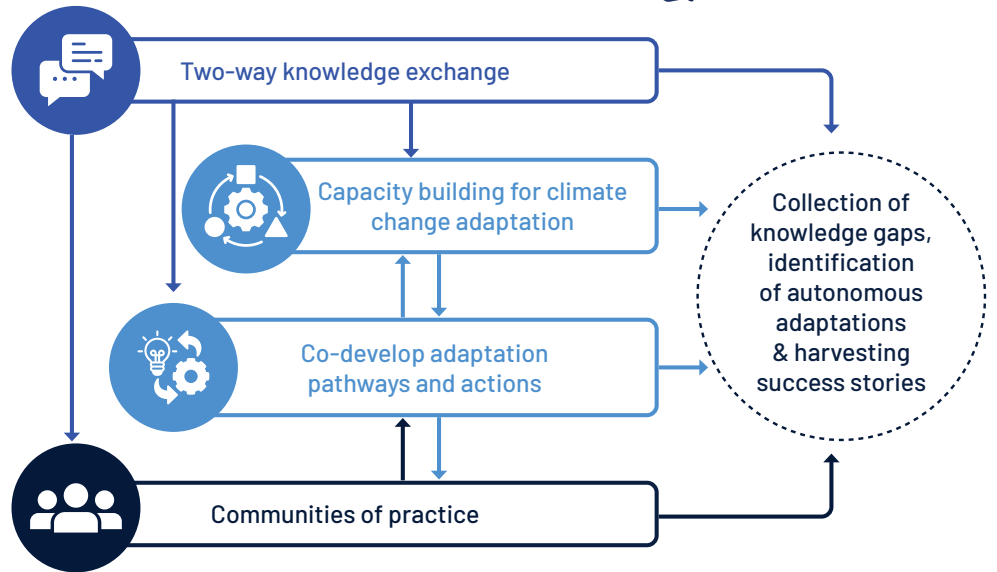
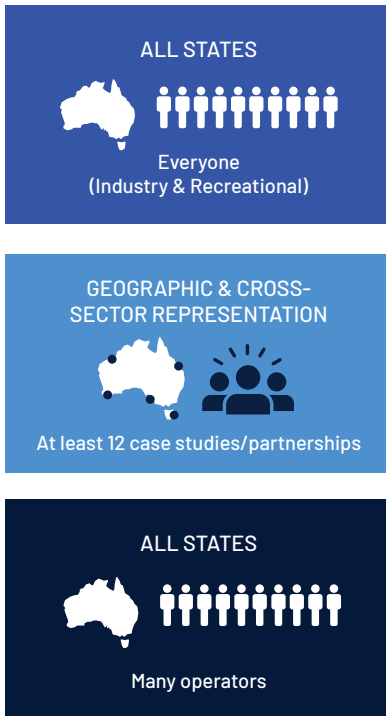
Across Australia, people involved in commercial/recreational fisheries and aquaculture need useful and relevant climate information that meets their changing needs. They also need ways to share how they're currently dealing with climate change and how they could improve their responses.

There's already a lot of information available about marine climate change and its risks to fisheries and aquaculture. However, many sectors haven't been able to plan, or put planned responses into action, even though individual operators are often making day-to-day changes to cope with climate impacts. If these changes are made without the best available knowledge, they might not work well in the long term or could even conflict with government plans.

Sea Change Australia will engage fishing (commercial and recreational) and aquaculture stakeholders on existing knowledge regarding risks and opportunities associated with climate change to:

- i. Help researchers and resource managers better understand how different sectors are already adapting on their own
- ii. Find out what's stopping further adaptation
- iii. Create practical solutions for local areas and specific sectors to build climate-ready communities and boost economic resilience





Some components of Sea Change Australia will operate **Nationally**, such as the ongoing, two-way exchange of knowledge between sector representatives and operators from across the whole seafood supply chain, managers, and climate change researchers. This will ensure that climate solutions for fisheries and aquaculture are practical, usable, and can be easily adopted.

Other parts of the project will focus on 12 case studies of fisheries and aquaculture operations from around the country. We'll look in detail at how well these sectors could potentially respond and adapt to climate change and extreme weather events. A key challenge is improving their ability to use climate information effectively, considering all the different factors that affect this ability.

We'll work with sector representatives and managers to identify the key elements (or "Adaptation Drivers") that influence how well fisheries and aquaculture can adapt to climate change. Some of these will be things individuals or businesses can control (like leadership or system changes in aquaculture), others will be external factors they might be able to use to their advantage (like market trends), and some will be things they might be able to influence under the right conditions (like community expectations or regulations).

Each case study will also involve an analysis of *policy and regulatory factors*, and the adaptive capacity of those factors (i.e., understanding the change process and the time needed to implement change) where barriers to timely adaptation are identified. This will provide the seafood sector and decision makers alike with a clear understanding of the policy and regulatory environment to work within and feasible changes to enable agility and effective adaptation planning.



The Sea Change Australia project aims to work with Australian fisheries and aquaculture sectors to develop ways to prepare for and respond to climate change impacts. We'll create a nationwide two-way knowledge exchange between researchers and sector stakeholders. Our main goals are to understand how sectors are already adapting to climate change, identify what's stopping further adaptation, and create practical, sector-specific solutions for climate resilience.

# HOW?



A key part of our approach is creating the opportunity and the mechanisms for anyone in the seafood sector, including operators and managers, to ask questions about climate change. These could be general questions (like “How is current climate change different from past changes?”) or specific to their sector (like “How will distributions of species x change in the next 10 years?” or “what is known about the impact of climate change on the currents in my region”). This is based on the very successful Curious Climate model (previously developed by our team) where a large volume of climate questions can be considered and the most popular/common submitted questions are then answered via public forums, industry events and meetings, roadshows, written text or videos hosted on a website, etc (i.e. a mix of digital and in-person approaches, tailored to regional/sector needs, and designed to reach a diverse audience).

This approach helps researchers at local, state and national levels learn more about the key issues and concerns in the seafood sector, and how we can better communicate climate information. It also gives us a chance to ask sector representatives how they need information presented and what details they need that we might be missing.

Importantly, this approach allows us to *learn what changes fishers and producers are already making* in response to climate change. This is crucial because these on-the-ground adaptations need to work alongside planned government strategies. Moreover, when answering questions about climate change from the seafood sector, we’ll make sure to engage and promote the *relevant local researchers* working in that area or on those issues – this is important as Sea Change Australia wants to create stronger links and to build trust between researchers, managers and the seafood sector at local, state and national levels.

Lastly, we know that change happens not just by giving people information, but by showing them examples of others successfully adapting. We’ll collect and share success stories to facilitate learning, motivate action and create a sense of optimism about adapting to climate change in the Australian seafood sector.

## DRAFT TIMELINE

**FEBRUARY 2024**

Project ‘soft’ start for co-development with key partners to further refine project scope, scale, approach, and plan, to ensure an informed and collaborative successful project that meets the needs of industry, managers and government.

**END OF NOVEMBER 2024**

Co-investment from partners confirmed & revised project application submitted.

**DECEMBER 2024**

Formal project start.

**Note:** full project will run from December 2024– 2028.



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A U S T R A L I A

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