

Mapping adaptation pathways and outcomes for the North West Shelf Flatback Turtle Conservation Program

Background

The Northwest Shelf Flatback Turtle Conservation Program (NWSFTCP) is coordinated by the Department of Biodiversity, Conservation and Attractions (DBCA) in Western Australia. It has a 30-year contract to increase conservation and protection of the Northwest Shelf Flatback turtle population including:

- a) surveying, monitoring and research
- b) reducing interference to key breeding and feeding locations
- c) establishing information and education programs

Key to the success of the program will be its ability to ensure effective linkages between research and conservation outcomes by integrating and planning research and activities for turtles and the community-at-large. Our four-year project (2018-2021) aims to support this through two related work packages.

Work Package 1- Outcome Mapping

For many conservation programs, understanding the perspectives of stakeholders is critical for achieving desired outcomes. The NWSFTCP will adapt the framework of Outcome Mapping (OM) to **understand, engage** with and **enhance** conservation actions. This part of the project will aim to identify measurable outcomes across social and biological factors and develop a monitoring program to facilitate **adaptive management** processes.

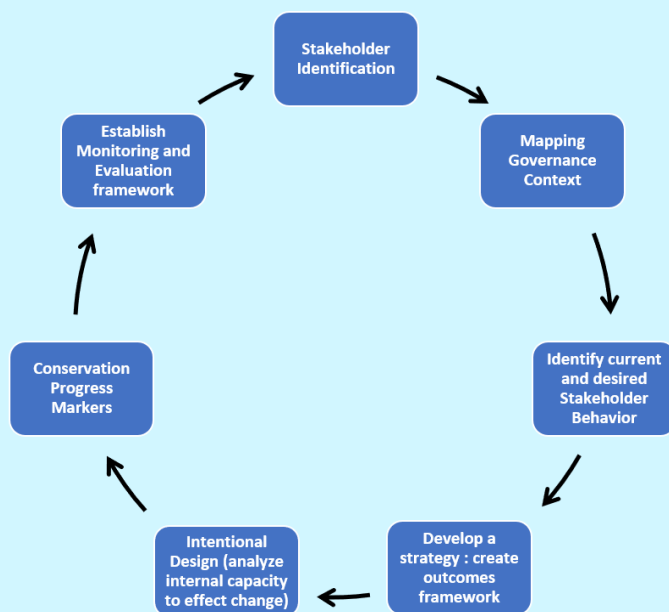


Figure 1: Outcome Mapping approach modified for the conservation sector

OM is a methodology for planning and assessing projects via the introduction of monitoring and evaluation considerations through a **learning-based management** approach. The OM process is intended to be participatory and involve the full range of stakeholders and project partners to encourage **ownership, acceptance** and **use** of the findings for NWSFTCP.

We have adapted steps in the OM framework to include elements of **communication** and **engagement** activities based on internal capacity and available resources. This will help stakeholders learn from outcomes, **build relationships**, adapt their strategies to support **pro-environmental behavioural change** and long-term conservation of Northwest Shelf Flatback turtles for the 30- year duration of the project and thereafter.

Work Package 2- Development of Robust Adaptation Pathways

The long-term nature of the NWSFTCP means that biodiversity conservation objectives and approaches must accommodate the future impacts of significant change. For example, as the climate continues to change, or as coastal development intensifies, the impacts on species and their ecosystems will become significant and widespread. Many current approaches to conservation may become increasingly difficult and ineffective.

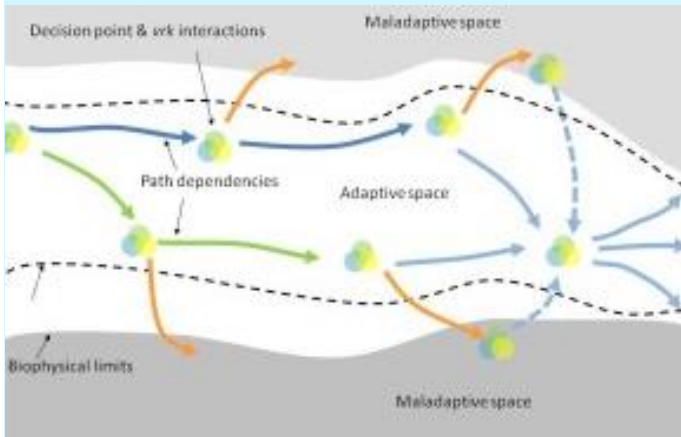


Figure 2: Visual representation of an adaptation decision making pathways

Adaptation pathways are used to show how important it can be to take a **long-term perspective** in order to avoid mistakenly setting out along an undesirable path of **research, engagement or intervention**. Thinking about the timing of decisions along a pathway helps plan for adaptation as a series of decisions over time instead of a once-off choice.

In addition to jointly developing a climate-ready adaptation pathway for the program that integrates social and biological factors, we will also develop a **Theory of Change (ToC)** for the program that is understood and supported by project steering committee, based on

information gathered in Work Package 1. ToC encourages stakeholders to explain how the project will reach its goals, and the process through which change will occur. This will lead to a visual representation of flatback turtle management and conservation, including biological and social factors, which will show the value of **long-term commitment** around **monitoring** and **research**. These collective activities will enhance stakeholder ability to support long-term planning and adaption interventions in the NWSFTCP.

How we work

While the research activities will be undertaken in two separate work packages, they are closely linked and will be done in conjunction with one another to ensure that both social and biological outcomes are established, measured and monitored. Both work packages are intended to be participatory, and will ensure that all key stakeholder groups are engaged in the research, and where possible, outputs are co-developed. A PhD student will also work as part of the research team, running a complementary project that will provide important insights for both work packages and the broader NWSFTCP.

Further information

The project webpage will feature regular updates: <https://research.csiro.au/teps/current-activities/mapping-and-monitoring-outcomes-and-developing-adaptation-pathways-for-the-northwest-shelf-flatback-turtle-conservation-program-western-australia/>

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