

**Coral reefs will react to different pressures**

Photo: P Mumby

**THE TOOL:**  
**Reef React****WHAT KIND OF TOOL IS IT?**

*Reef React* is a web based tool which uses a Bayesian Belief Network (BBN).

**WHAT ARE THE DIFFERENT PARTS TO IT?**

- Free Netica software to build a network and capture different drivers influencing coral reef dynamics
- A model to predict probability of coral reef cover in each percentage category and measure mean of coral reef cover in given years for different climate scenarios
- A user guide

**WHAT DOES IT DO?**

*Reef React* assists users to predict alternate futures for coral reef ecosystems under various climate and human use scenarios to help guide policy and management interventions to reduce negative impacts.

**HOW DOES IT WORK?**

*Reef React* is accessed through free Netica software and an easy-to-use web-based interface. The tool enables modelling of the impacts on coral reef ecosystems of proposed interventions for managing threats to coral reefs, before making a management intervention.

**WHEN IS IT USED?**

*Reef React* is used when decisions are required on how best to manage threats to coral reef ecosystems.

**IN WHAT FORMAT IS IT AVAILABLE?**

*Reef React* is available as a Netica file (.neta) and an easy-to-use web-based interface. A user guide is available in a PDF file.

**WHO IS THE TARGET END-USER?**

- Government planners undertaking MSP wishing to identify the most vulnerable reefs and those with the greatest current resilience
- NGOs involved in MSP, conservation planning, or coral reef research
- Scientists undertaking monitoring or assessments of coral reefs and or interested in coral reef futures and ecology

**WHAT USER SKILLS ARE REQUIRED?**

General skill in GIS is required to use Netica, however, prior knowledge and expertise required to use the tool is minimal.

**WHERE DO YOU ACCESS THE TOOL?**

*Reef React* is available for download from the CCRES website ([www.ccre.net](http://www.ccre.net)).

**WHAT IS THE COST OF USING THE TOOL?**

*Reef React* is available free of charge, under the user agreement and stated terms and conditions (see [www.ccre.net/terms](http://www.ccre.net/terms)).

**IS TECHNICAL TRAINING OR SUPPORT REQUIRED?**

*Reef React* is easy to use but training in GIS or the use of Netica may be helpful.



NETICA



USER GUIDE AND EXAMPLE DATA