



Towards a framework for
integrated conservation planning of
coastal catchments and nearshore
marine areas

Map of the Great Barrier Reef World Heritage Area and catchments.

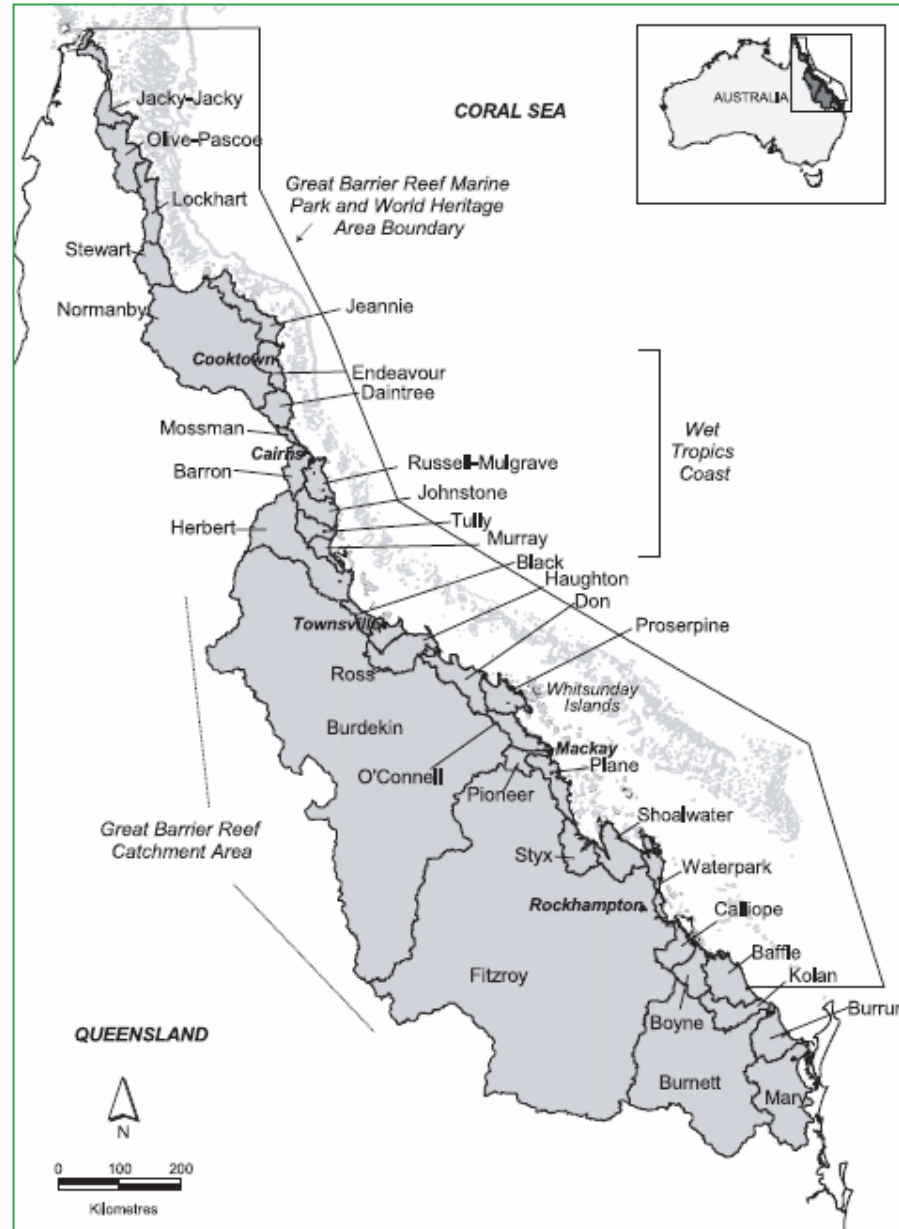
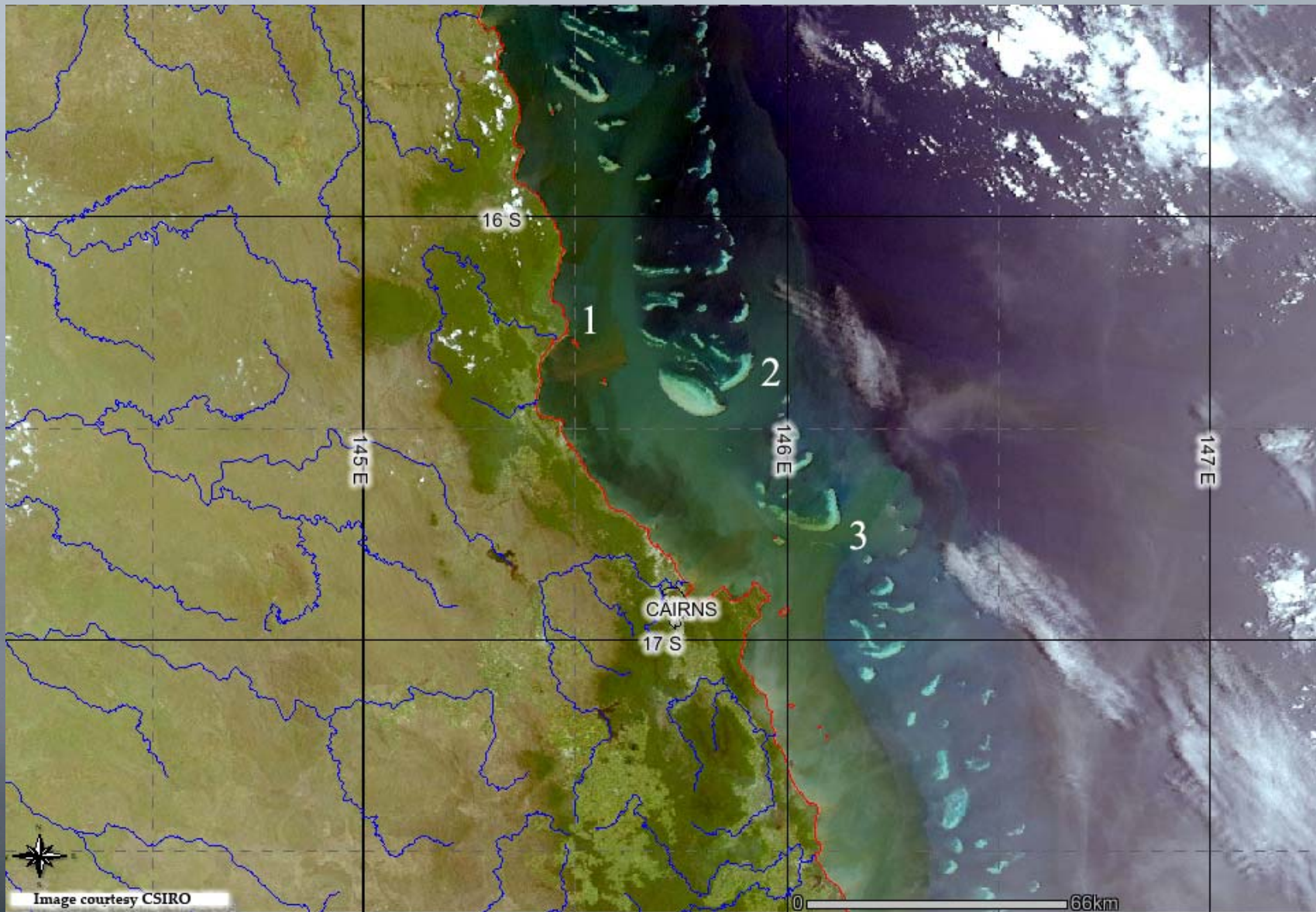
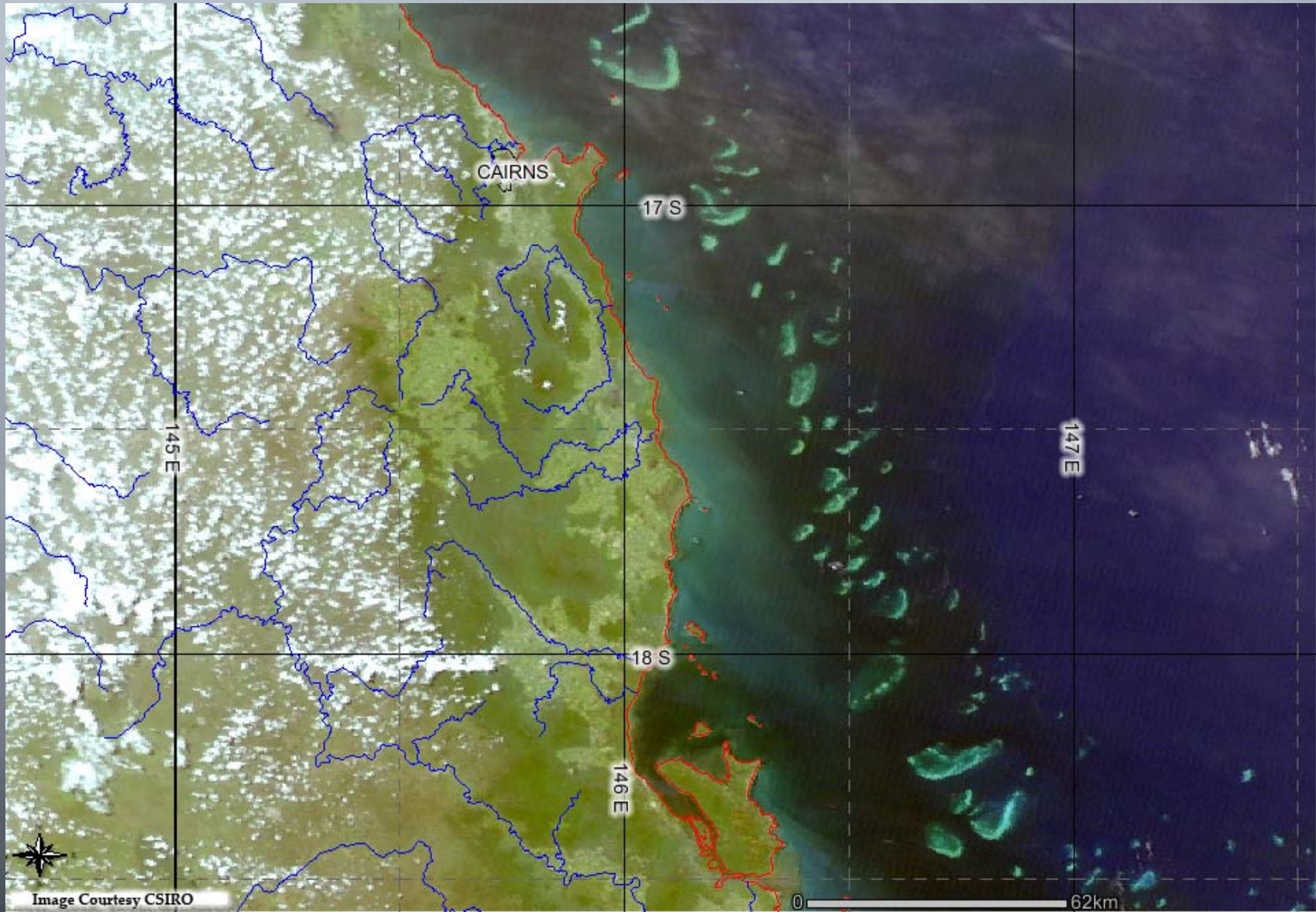


Figure 1: Map of the Great Barrier Reef World Heritage Area and catchments.





Institutional setting ...

NATURAL RESOURCE MANAGERS include

- 42 local government areas
- 9 natural resource management boards
- Queensland state government departments
- Federal agencies, including the Great Barrier Reef Marine Park Authority

RESEARCH ORGANISATIONS include

- Australian Institute of Marine Science
- CSIRO
- Queensland state government departments
- The Australian Museum
- James Cook University
- University of Queensland

Elements of a planning framework

- Goals (related to biodiversity, ecosystem services ... etc)
- Data (on biodiversity, ecosystem services ...) and costs

For downstream impacts, this requires good, spatially explicit models of the contribution of each area to sediment, nutrients, pesticides to the sea (if devegetated or restored)

- Decision-support system (for both protection and restoration) to show people:

1. marginal contribution of areas to objectives; or

2. irreplaceability of areas for achieving regional-scale targets

- Note that this needs integration of values across multiple elements of biodiversity and multiple ecosystem services
- Choices include: 1. between conservation values in each catchment; 2. between restoration and protection; 3. between catchment values and downstream values