

4.25 This concept map shows the range of activities that influence the Great Barrier Reef and highlights why it needs protecting.

Indigenous heritage

The Indigenous heritage of the Great Barrier Reef is an important aspect of its World Heritage listing. Aboriginal and Torres Strait Islander peoples have built a lifestyle around the marine environment and have a great deal of knowledge about the resources offered by the animals and plants of the area. Today more than 50 traditional owner groups live along the coast and islands from Bundaberg to Cape York Peninsula.



Urbanisation

The climate, scenery and lifestyle along the coastal strip of Queensland attract both tourists and permanent residents. The growth of cities such as Cairns has placed increasing pressure on the reef as a result of pollution and the number of people who use the reef as a recreation area.

Tourism

Over 85 per cent of visitors to the reef go to the offshore areas around Cairns, Port Douglas and the Whitsunday islands, which make up less than 10 per cent of the total marine park. This means that tourism is concentrated in a small area of the reef. Tourism operators are one of the key groups aiming to manage the reef in a sustainable way.

HUMAN ACTIVITY IN THE GREAT BARRIER REEF REGION

Scientific research and management

GBRMPA plays an important role in the management of the reef. An essential part of their work is to ensure that they learn about the interactions that occur within the reef environment. Only with increased scientific knowledge can geographers make plans for the management of the reef into the future.

Agriculture

Cattle grazing in the headwaters of the rivers that flow to the coast and sugarcane farming along the coastline pose a threat to the Great Barrier Reef. Runoff containing soil smothers the reef. Fertilisers and pesticides used on the farms change the balance of the nutrients in the water.

Shipping

The Great Barrier Reef is located on an important shipping route and unwary captains can cause damage to the reef. The grounding of ships on the reef and oil leakages into the waters continue to occur. Strict rules are in place to ensure that ships have only a minimal impact.



Commercial fishing

The commercial fishing fleet on the Great Barrier Reef catches around 24 000 tonnes of seafood valued AU\$120 million per year.



4.26 Runoff from agriculture can destroy coral reefs.

Activities

Knowledge

- 1 Describe the spatial dimensions of the Great Barrier Reef.
- 2 Name the three types of coral reefs that form the Great Barrier Reef Marine Park.
- 3 Why is the Great Barrier Reef a globally significant environment?
- 4 Give four examples that highlight the level of biodiversity found in the Great Barrier Reef.
- 5 What is the total estimated value of the Great Barrier Reef to the Australian economy?
- 6 Describe four ways that the Great Barrier Reef is considered to be of value to the people of Australia.
- 7 What activity did a royal commission investigate for the Great Barrier Reef between 1970 and 1974? Why do you think the royal commission recommended against the activity?
- 8 What was the outcome of the royal commission in 1975 and what impact did this have on the management of the Great Barrier Reef?
- 9 When was the Great Barrier Reef added to the World Heritage List? Give two reasons why you think it was added to this list.
- 10 Construct a two-column table titled 'Groups who use the Great Barrier Reef'. Name the left column 'User group' and the right column 'Impacts'. Use the information in the concept map in 4.25 to write a brief description of the way these groups impact on the reef.
- 11 Explain why the management of activities within the Great Barrier Reef area is such a complex task.

Skills

- 12 Use 4.26 to create a sketch map of the area shown. You will need to include the river, the river mouth and the sediment in your map.

Application

- 13 **Class debate:** 'The money-making opportunities from the reef environment are more important than any impact these activities might have on the coral reef.'
- 14 **Community meeting:** Set up the classroom to hold a public meeting using the following scenario:

GBRMPA is currently developing a management plan for an area of the reef. The Authority has called a public meeting to get ideas and concerns about the use and management of an area that is to be rezoned from a highly protected area with only a few human impacts to an area that will be developed and allow unlimited access. All interested groups have been invited to attend the meeting.

First appoint a chairperson representing the GBRMPA to run the meeting and to decide on the rezoning of the area once the meeting has finished.

Next divide the class into the groups listed in 4.25. Research the issues and benefits of your group using the reef.

Prepare a short presentation. Each group will be given a three-minute time slot to present their opinion. After the presentations the meeting will debate the issues that arise before a final decision is made by the chairperson.

Surf

