

## 1 INTRODUCTION

The Great Barrier Reef Marine Park Authority commissioned the Department of Geography, James Cook University of North Queensland to conduct a field survey of carbonate, silica and quartzose sediment deposits that are located within or adjacent to areas of the Great Barrier Reef Region, but not within the Great Barrier Reef Marine Park (GBRMP).

The *Great Barrier Reef Marine Park Act 1975*, section 38, prohibits operations for the recovery of minerals from the Marine Park, except for the purposes of research. The prohibition applies to carbonate sands (coral sand, star sand, shell-grit), coral limestone, silica and quartzose sands, that are collected in large quantities or for commercial purposes. In recent years the Great Barrier Reef Marine Park Authority (GBRMPA) has received numerous requests for permission to recover large quantities of these sediments for commercial purposes from within the Great Barrier Reef Marine Park (GBRMP). These include requests for, or enquires about:

- i) carbonate sediments for use in the marine aquarium trade,
- ii) coral or silica sands to improve tourist resort beach amenity, and
- iii) quartzose sands for use in beach renourishment projects.

However, the requests have been denied as the Authority has no powers under the Act to grant such permission. Therefore, there is a need for further information on possible sources of carbonate, silica and quartzose sediments in the Great Barrier Reef Region, but outside the Marine Park boundaries. Thus, the objectives of this project were to identify possible sources of:

- i) high carbonate sediment deposits suitable for collection and use by the marine aquaria trade, and
- ii) silica and quartzose sand deposits for beach replenishment purposes,

that are located within or adjacent to areas of the Great Barrier Reef Region but not within the Great Barrier Reef Marine Park. The scope of the study has not extended to providing the full range of information that would be required in the event of any of these potential sites being used as sediment sources.