8 COSTS OF REHABILITATION

A damaged reef might be rehabilitated to a coral cover of approximately 20% to 30% (about normal for a reef), or as low as 10% to 15%. Once a cover of the latter is achieved, the relatively rapid growth rate of the corals free from competition with neighbours would result in a near normal coral cover in one to three years. A costing exercise based on these covers is given in appendix 2.

Costs would vary according to the circumstances and it is not possible to give even approximate estimates. A formula for estimating costs in a range of situations is presented.

Costs

Boat charter (cost/day x number of days)
Labour costs (costs/day x number of days)
Costs of diving equipment and air fills
Equipment costs - stakes, drills, cable ties, bins, hammers.

The major costs are boat charter and labour. The time required will depend on -

Initial coral cover surviving
Projected final cover of coral
Whether corals must be attached
The distance to a source of transplantable corals
The weather conditions and skill of the workers.

The rate at which divers can collect and deposit corals will depend on the skill and experience of the divers, depths, and on the amount of suitable coral at the collection site. We found during the collections for the experiments associated with this study (appendix 1), that in one work hour we could collect and replace on the bottom enough corals to give a cover of 10%-20% over an area of 10 m^2. There were some limitations on the corals collected for the experiments and we could assume that the rate might rise to as high as a 30% cover over 10 m^2 in one work hour. This collection rate is used in the examples given in appendix 2, and will provide a guide for working out total costs when the costs of labour, equipment, boats are known and the area of the site to be treated has been established.