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Our Coral Reefs

Stephan M. Soule

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Stephan M. Soule

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Coral reefs are very important to the people of the South Pacific Islands. Coral reefs are made up of many animals and plants as well as corals. Many islanders depend on animals like fish, clams, crabs and spiny lobsters that live in coral reefs for their food.

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Coral reefs are also important because they protect houses, beaches and other coastal areas from waves.

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Coral comes in many different shapes, sizes and colors. All corals are made up of very small animals called polyps. Coral rock and reefs are formed when coral polyps make skeletons and join together.

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Coral polyps get their food in two ways. They use their tentacles like arms to catch small animals, such as baby clams or shrimps, that float past. They also get food from very small round plants (called zooxanthellae; they are too small to see) that live inside their skin. These small plants use sunlight to make food which they share with the coral polyps.

These small plants inside the coral polyps need sunlight to grow. So, corals can live only in clear, shallow water.

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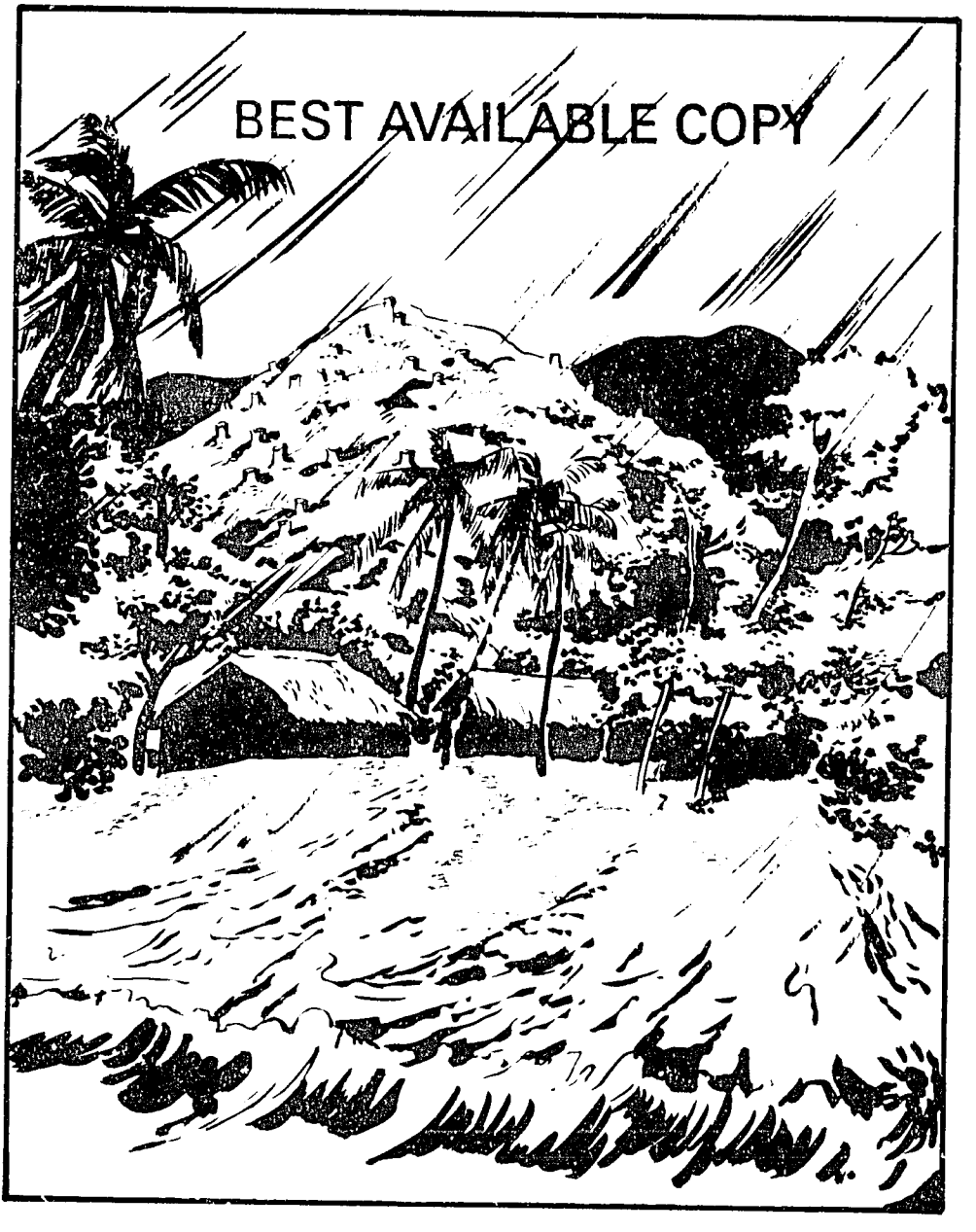
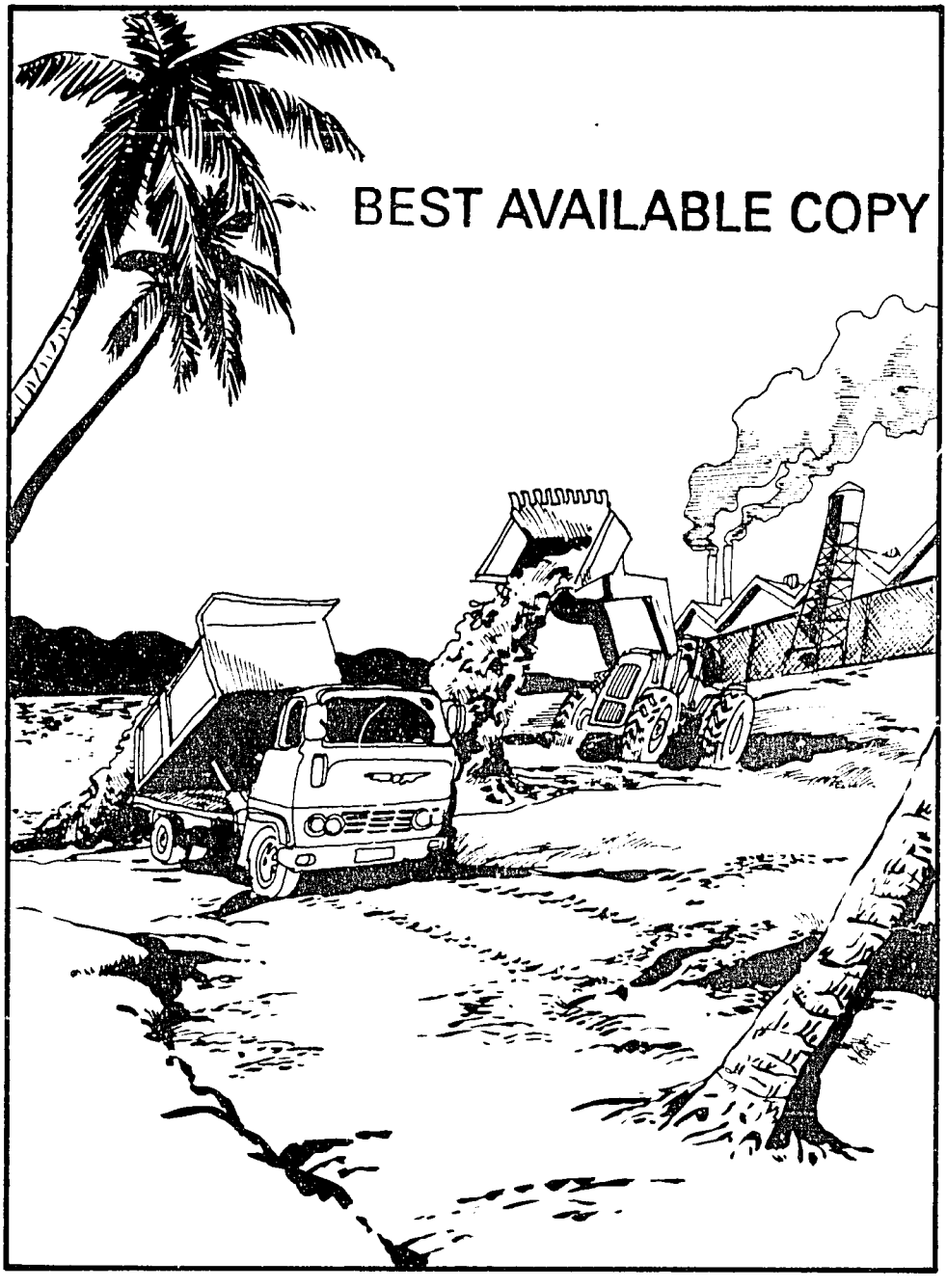
Storms and some animals damage coral reefs but people cause the most damage to coral reefs and the other animals that live around them.



Logging and mining can damage coral reefs. When trees are cut down, the soil has nothing to hold it in place. When it rains, the soil washes down into the sea. This makes the sea very dirty and kills corals. When coral reefs die, fish and other animals that depend on these reefs also die.



Projects such as logging, mining, tourism and commercial fishing are often seen by government and communities as a way to get money. But sometimes these projects damage the land and sea. They can also pollute drinking water and take away food which local people need to live.

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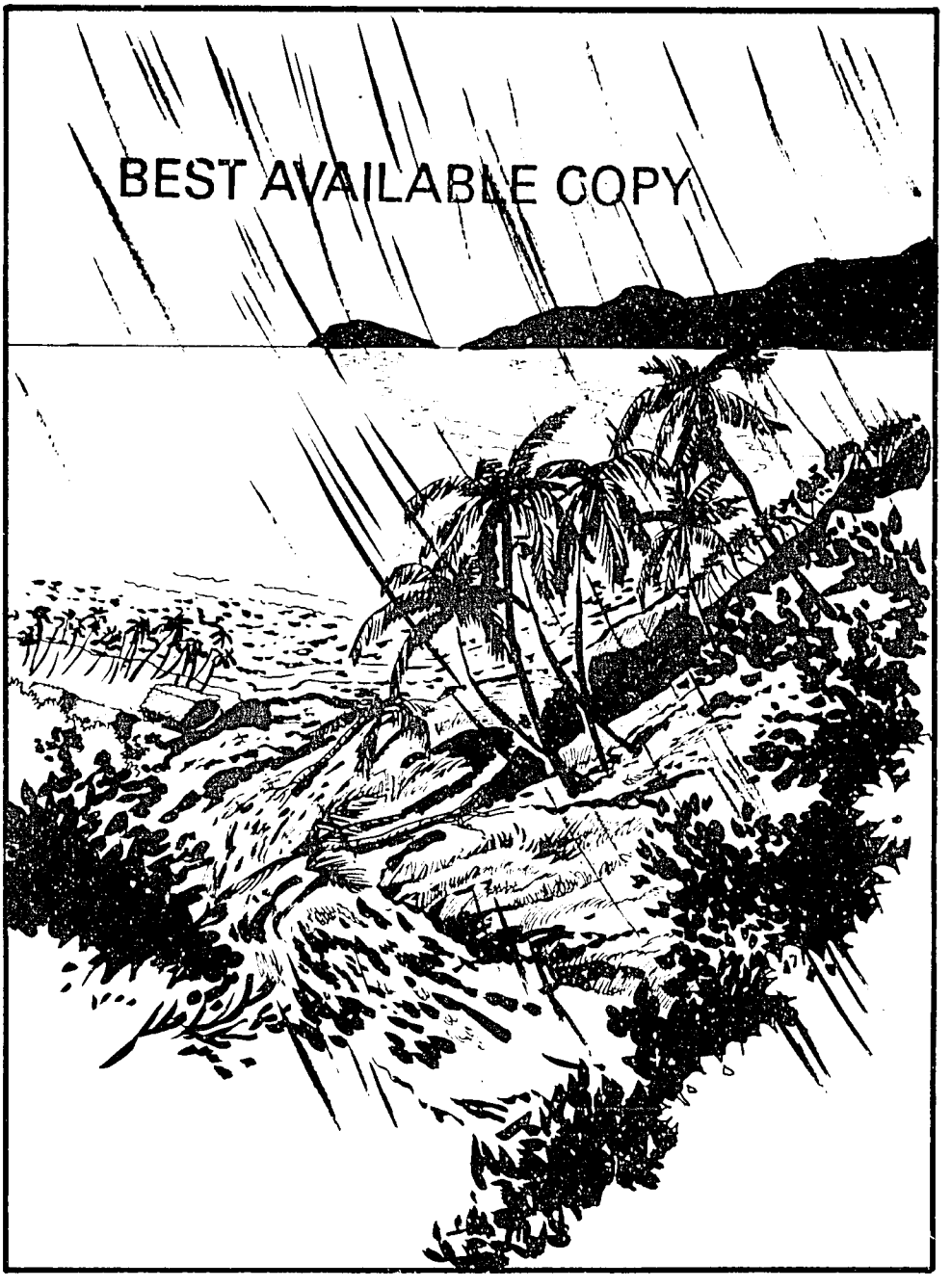
Projects to get money should involve villagers and fulfill the needs of the community. Any new project should be studied by the community to see what effects it will have on the village and on the land and sea. If villagers think that the effects will be bad, they should tell the government and the project leaders that the project should be changed or stopped.



On some islands, people have to make their gardens or houses on very steep hills because there is no flat land. When it rains, the soil washes into the sea.

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Building terraces will help keep the soil in the garden. When you do this, the plants will grow bigger and the sea will stay clean and clear and coral reefs will grow well.

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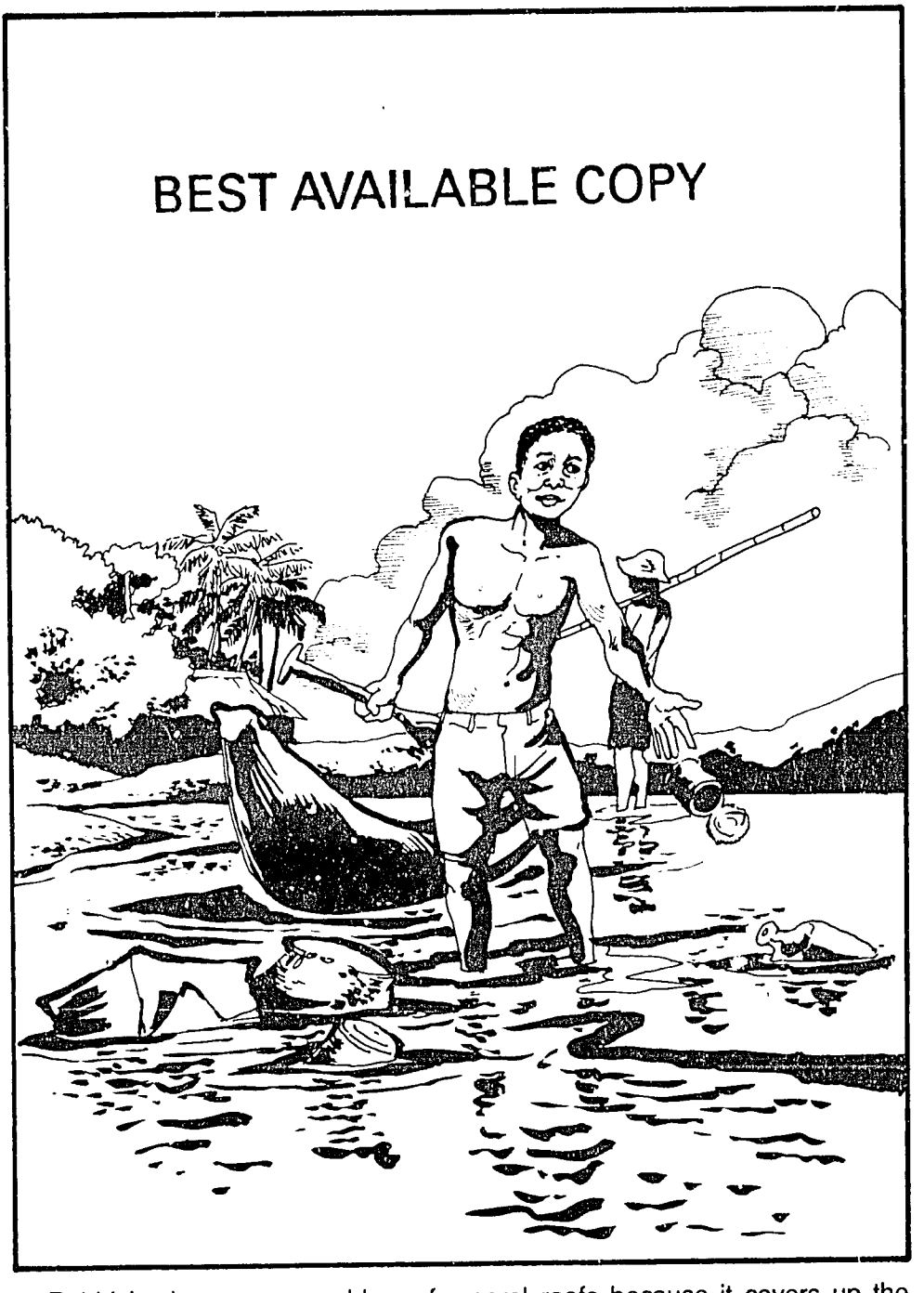
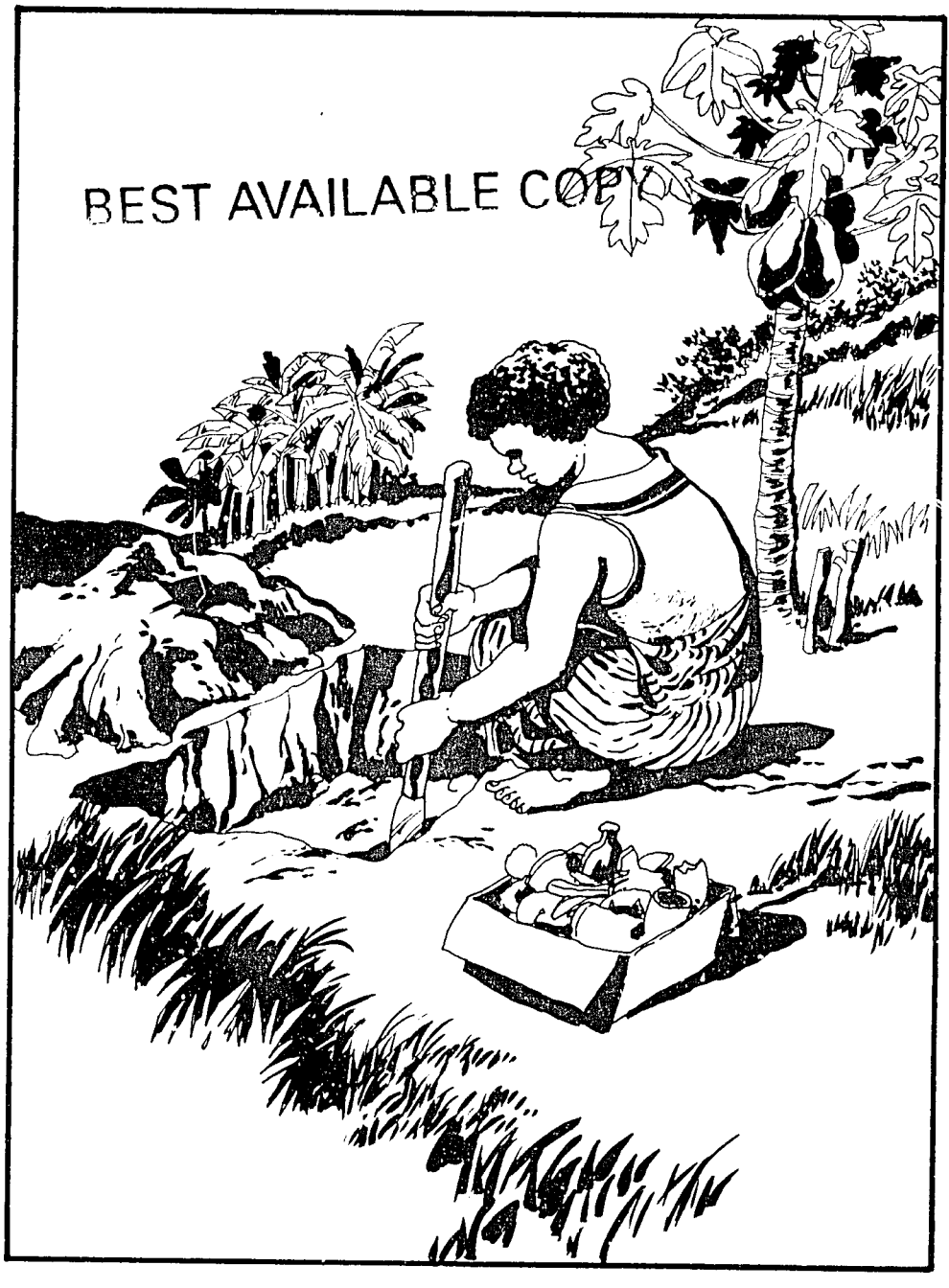
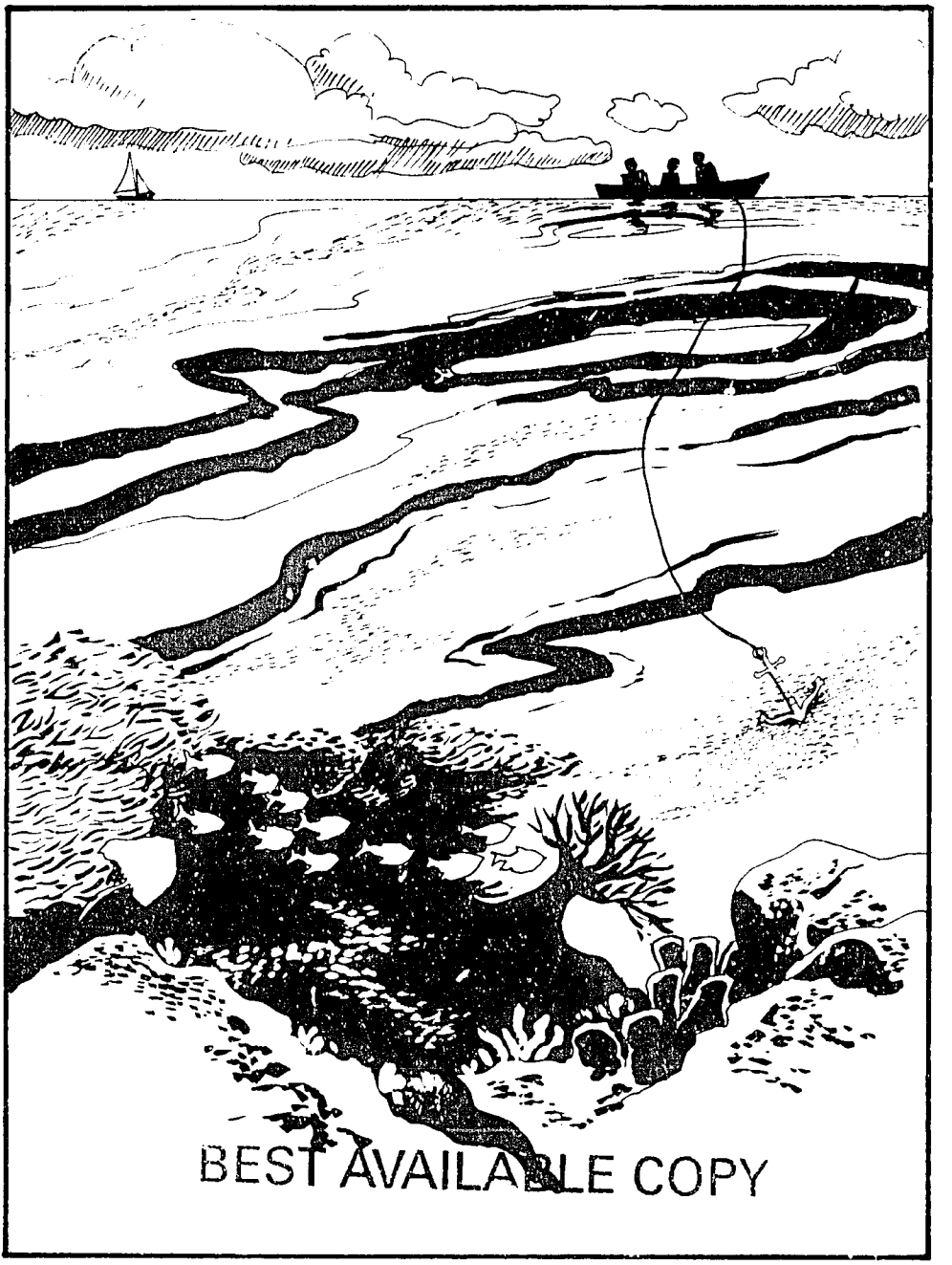


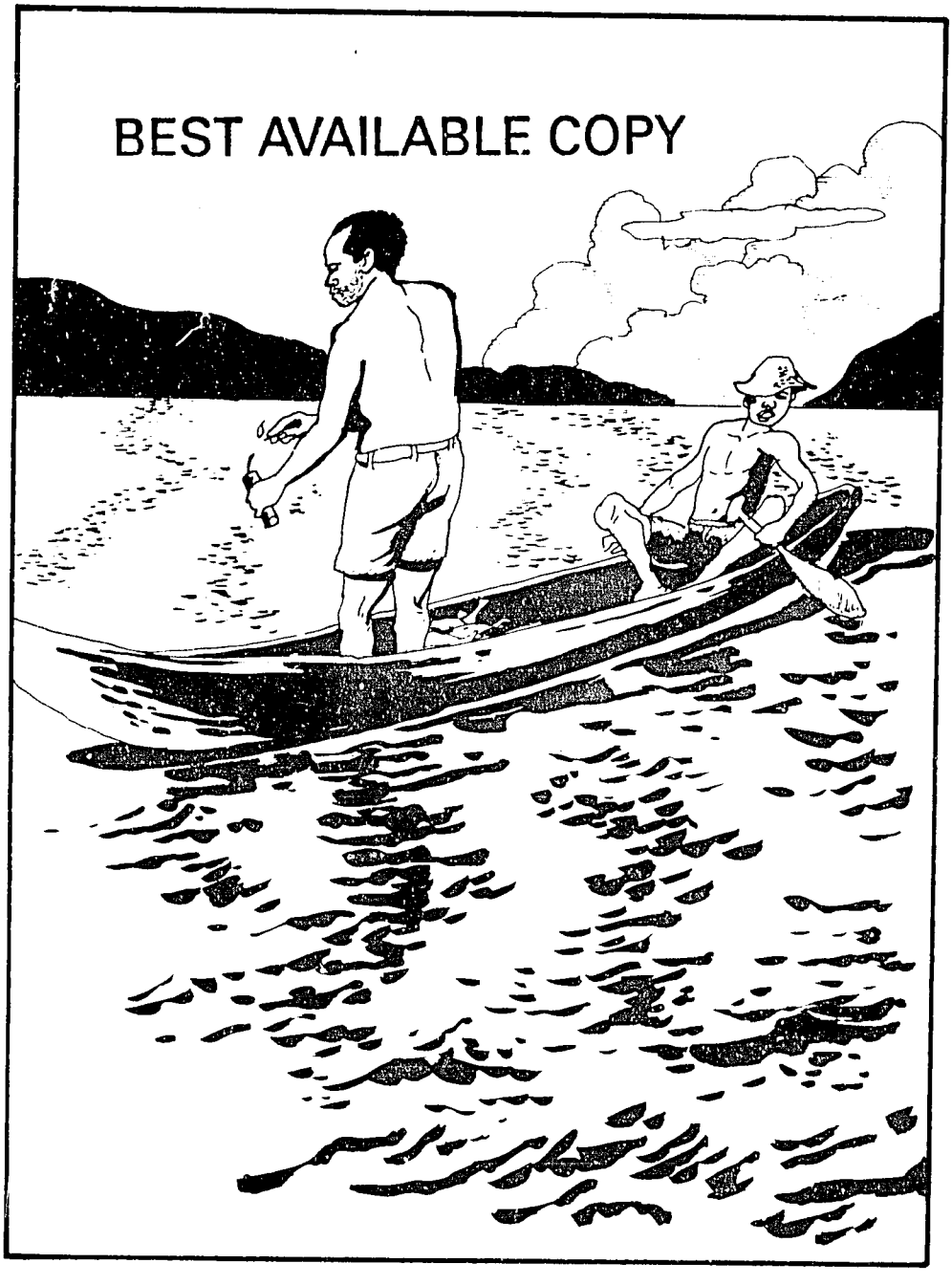
Rubbish also causes problems for coral reefs because it covers up the corals and kills them.



Rubbish that comes from store goods should be buried in a place away from rivers and the sea. If we bury our rubbish, the sea and land will be cleaner and there will also be less chance of people getting sick.



Yachts and other boats should take care not to drop anchors on coral reefs, but rather anchor in sand. Anchors damage corals. Where the coral is dead, there are fewer fish than on healthy reefs.



Some types of fishing can damage coral reefs and hurt people. Using dynamite and poison to fish kills corals and baby fish and other animals living on the reef. Dynamite and poison should not be used to fish.

If too many fish or shellfish are caught, there will be fewer baby fishes next year and fish will become scarce.

Some reef animals can become difficult to catch when the number of people in the village grows and more people fish to get money.

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One animal that has already been overfished from many coral reefs is the giant clam. Like coral, giant clams also have very small plants that live inside their skin. Giant clams grow best and reproduce at a younger age in clean, clear water.

Because of their pretty shells, overseas demand for trochus, green snails and pearl oysters has grown. These animals have started to be overfished from many reefs in the Pacific Islands and around the world.

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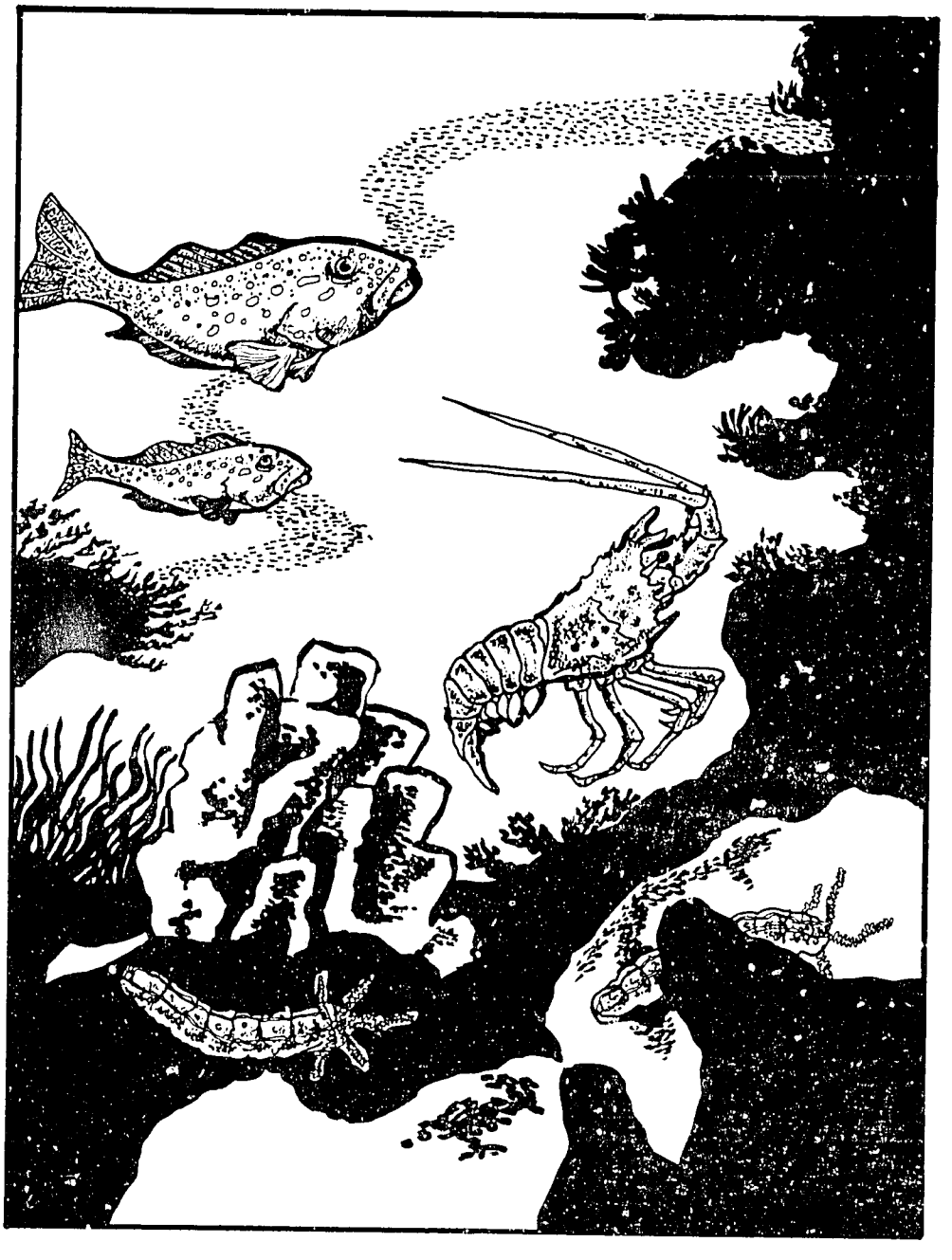
You should not take too many large shells from one area. Leave the small shells on the reef so that there will be some shells to harvest next year.



Sea cucumbers (bêche-de-mer), spiny lobsters and big fishes, such as groupers, can bring good incomes if catches are carefully controlled.

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Some Pacific Island communities have used custom taboos or agreed on other ways to limit how many coral reef animals they catch.

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Sea turtles and dugong grow slowly so it is easy to catch too many. Taking turtles when they are laying eggs or taking turtle eggs is also a problem.

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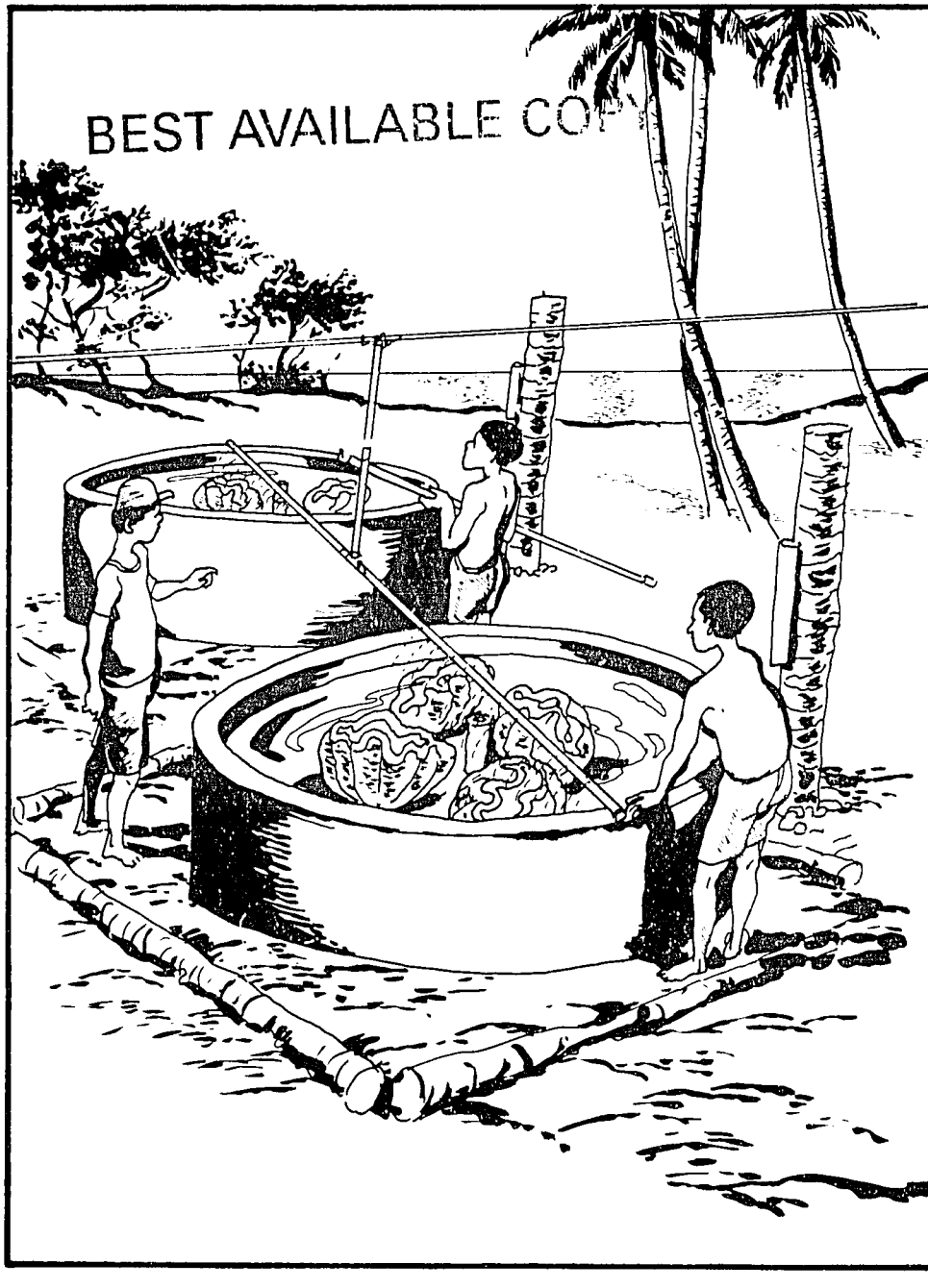
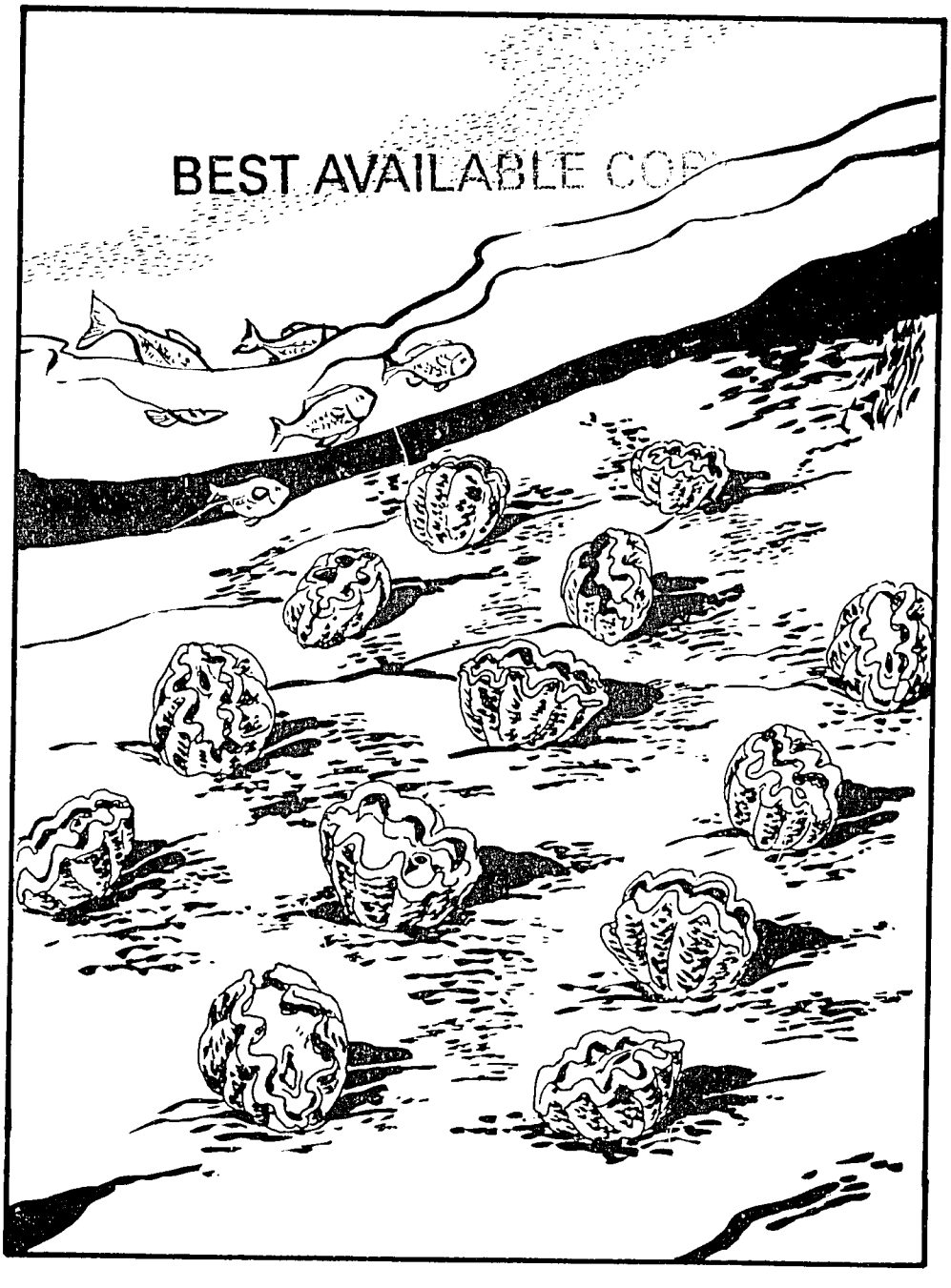


Some Pacific Island nations already have research farms where people have learned how to grow coral reef animals like giant clams.



In some places, underwater farms can be used to grow animals like giant clams and pearl oysters, if coral reefs are kept healthy and the community agrees not to harvest the babies.

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We depend on reefs for food, income, protection from storms and for our way of life. We should protect coral reefs for our sake and for our children's and grandchildren's.

How will you answer?

- How are coral reefs important to you and your community?
- How are coral reefs made?
- Why do coral reefs need clean water?
- What do you think would make the water dirty?
- What other things can damage coral reefs?
- What should the community do before any development project is started?

For more information on coral reefs, you can order the following publications or contact the following organizations:

Greenpeace Pacific Campaign (139 Townsend St., San Francisco, California 94107; Tel. (415) 512-9025, Fax (415) 512-8699)

- *Greenpeace coral reef fact sheet.* Greenpeace Pacific Campaign. 1991. 5 p. US$0.48 airmail.
- *Greenpeace book of coral reefs.* S. Wells and N. Hanna. 1992. 160 p. $35 surface; $40 airmail. (Order through Sterling Publishing Co., 387 Park Avenue South, New York, NY 10016 USA; in USA, call 1-800-367-9692).
- *Upstream development and coastal zone conservation.* E. Hviding. 1992. 10 p. $1 airmail.
- *Collaborative and community-based management of coral reefs.* A. White, L. Zeitlin-Hale, Y. Renard and L. Cortesi, editors. 1994. $26.95 surface; $42.95 airmail.

South Pacific Regional Environment Programme (P.O. Box 240, APIA, Western Samoa; Tel. (685) 21-929, Fax (685) 20-231)

- *Coral reefs in the South Pacific: handbook.* M. King. 1988. 40 p. $3 airmail.
- *Coastal environments in the South Pacific.* SPREP. 1989. 44 p. $3 airmail.
- *Protect our coral reefs.* Poster. SPREP. 1990. $2 airmail.
- *Environmental case study no. 7: overexploiting coral reefs: reef blasting in Nauru.* T. Tebano. 1993. 2 p. $2 airmail.
- *SPREP fact sheet no. 9: APIA: save our coast.* Poster. Western Samoa Division of Environment. 1993. $2 airmail.
- *Coral reefs in South Pacific: teaching booklet* (available in English, French and Tokelauan). Free to Pacific Region countries; $3 airmail, outside.
- *Remote sensing of coral reefs: an overview.* Free to Pacific Region countries; $7 airmail, outside.
- *SPREP fact sheet no. 3: coral reefs.* Free to Pacific Region countries; $2 airmail, outside.

Ocean Voice International (2883 Otterson Drive, Ottawa, Ontario K1V 7B2 Canada; Tel. (613) 990-2207, Fax (613) 521-4205)

- *Save our coral reefs: a coral reef manual for the Philippines.* D E. McAllister and A. Ansula. 1993. 126 p. $22.50 surface; $25 airmail.

Forum Fisheries Agency (P.C. Box 629, Honiara, Solomon Islands; Tel. (677) 21-124, Fax (677) 23-995)

ICLARM (The Editor, MCPO Box 2631, 0718 Makati, Metro Manila, Philippines; Tel. (632) 818-0466, 818-9283, 817-5255, 817-5163, Fax (632) 816-3183)

- *Caribbean coral reef fishery resources.* J.L. Munro, editor. 1983. ICLARM Stud. Rev, 276 p. $16 surface; $33 airmail; P200 (paperback); $19.50 surface; $37 airmail; P250 (cloth).
- *Coral reefs: valuable resources of Southeast Asia.* A.T. White. 1987. ICLARM Educ. Ser. 1, 36 p. $2 surface; $7 airmail; P25.
- *Resource ecology of the Bolinao coral reef system.* J.W. McManus, C.L. Nañola, Jr., R.B. Reyes, Jr. and K.N. Kesner. 1992. ICLARM Stud. Rev. 22, 117 p. $2 surface; $10 airmail; P50.