



What Is This Module About?

Have you ever visited any of our country's beautiful water forms? Cite some famous lakes, rivers, beaches or other water forms you have been to. What can you say about them? Given the chance, would you like to visit these places again? Why or why not?

Interview your parents or some of your older relatives. Ask them to compare how these scenic spots looked like in the past as compared to how they do now. Let them infer what caused these changes. Isn't it sad that these changes are taking a turn for the worse instead of for the better? How do you think can their destruction be prevented?

This module will tell you all about this topic and more. It is divided into four main lessons.

Lesson 1 — *Water, Water Everywhere*

Lesson 2 — *Water for Life*

Lesson 3 — *Going, Going, Gone*

Lesson 4 — *It's Never Too Late . . .*



What Will You Learn from This Module?

After studying this module, you should be able to:

- ◆ define what freshwater and marine ecosystems are;
- ◆ identify the uses of freshwater and marine resources;
- ◆ analyze environmental issues related to freshwater and marine ecosystems; and
- ◆ enumerate possible solutions to address and remedy environmental problems related to freshwater and marine ecosystems.



Let's See What You Already Know

Before you start studying this module, take this simple test first to find out what you already know about the topic.

Write the letter of the correct answer in the blank before each number.s

- _____ 1. A _____ is anything that has life.
 - a. nonliving thing
 - b. living thing

- _____ 2. A _____ is the opposite of a living thing.
 - a. nonliving thing
 - b. living thing

- _____ 3. The _____ is made up of the surroundings or conditions for something or someone to exist.
 - a. environment
 - b. ecology
 - c. ecosystem

- _____ 4. An _____ is the relationship between all the living and nonliving things in a particular environment.
 - a. economy
 - b. ecology
 - c. ecosystem

- _____ 5. A river is an example of a _____ ecosystem.
 - a. freshwater
 - b. marine

- _____ 6. A beach is an example of a _____ ecosystem.
 - a. freshwater
 - b. marine

- _____ 7. Which of the following tourist spots can be considered a freshwater ecosystem?
- Pagsanjan Falls
 - El Nido Beach
 - Dakak Beach
- _____ 8. Which of the following tourist spots can be considered a marine ecosystem?
- Taal Lake
 - Puerto Galera Beach
 - Tiwi Hot Spring
- _____ 9. _____ ecosystems are ecosystems that are present near or in bodies of water.
- Terrestrial
 - Aerial
 - Aquatic
- _____ 10. Natural and _____ factors can affect our aquatic ecosystems.
- man-made
 - personal

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer Key* on page 29 to find out.

If all your answers are correct, very good! This shows that you already know much about the topics in this module. You may still study the module to review what you already know. Who knows, you might learn a few more new things as well.

If you got a low score, don't feel bad. This means that this module is for you. It will help you to understand some important concepts that you can apply in your daily life. If you study this module carefully, you will learn the answers to all the items in the test and a lot more! Are you ready?

You may go now to the next page to begin Lesson 1.

LESSON 1

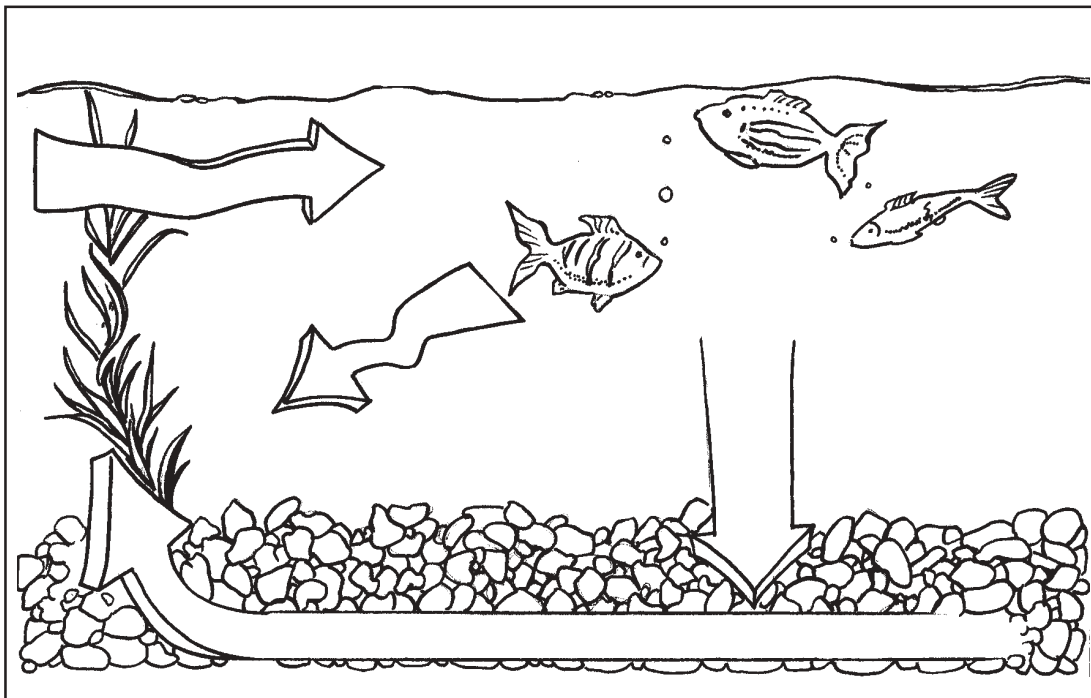
Water, Water Everywhere

Nothing and no one can exist alone on earth. All living things relate with each other. They also relate with the nonliving things in the environment. These relationships are what we call **ecosystems**.



Let's Read

Study the following diagram showing how organisms in an ecosystem are related to one another.



Here's how it works . . .

The plant inside the tiny tank gives off oxygen which the fish use in processing the food (toothpick) they eat. The fish, in turn, give off carbon dioxide that the plant uses. Their waste and uneaten food, meanwhile, are changed into ammonia. This is then turned into nitrates by nitrifying bacteria which can be found on the sand and pebbles in the tank.

In the preceding diagram, you can see how living things and nonliving things in an **aquatic ecosystem** (see *Glossary*) interact with each other. From the diagram, you can see that the tiny tank is its own balanced ecosystem. The plant and animals in it share their **resources** (see *Glossary*) to live together in harmony.

Now, read the following news article.

Overfishing: The San Miguel Bay Experience

Haribon (see *Glossary*) staff went to San Miguel Bay in Calabanga, Camarines Sur in 1998 with the purpose in mind: to determine what should be done to rehabilitate the capiz fishery, increase the income of capiz collectors and insure a sustainable harvesting process for capiz shells. Three coastal villages in San Miguel, located in the eastern coast of the Bicol Region, are known havens of capiz shell collectors. The capiz shells trade in San Miguel Bay started in 1930, peaked in the 1970s and ended in 1995 due to capiz population collapse, rampant trawling, strong storms and overharvesting.

The Haribon staff who went to San Miguel Bay and stayed with the fisherfolk primarily to study the capiz industry, later campaigned against trawl fishing which they deemed as the main cause of the rapid deterioration of the bay and the decline in fish production. Trawling is one of the most destructive fishing methods used in the country today and it is rampant in San Miguel Bay.

Trawl fishing is ecologically destructive because it removes part of the **seabed** (see *Glossary*) and destroys the home of the sea's bottom-dwelling organisms. Many species asby-catch are thrown, wasted and uprooted from their natural homes. It also stirs up sediments that may be transported to adjacent ecosystems and cause the destruction of corals, capiz shells and other marine organisms.

The negative environmental and socioeconomic impacts of trawling are now taking its toll on San Miguel Bay. A decline in overall **biological diversity** (see *Glossary*) was observed. The common complaint among fishers is that once an area is trawled, their catch is barely enough for their family. "Fished to the limit" can be said of the sorry state of San Miguel today.

Source: Haribon Foundation. www.haribon.org



Let's Review

Answer the following questions about the news article in *Let's Read*.

1. What is the news article about?

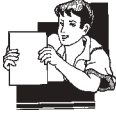
2. What organization was mentioned in the article? What kind of organization is it?

3. What is their purpose in publishing the said article?

4. What main environmental problem was discussed in the article?

5. What was the conclusion given by the writer about the problem discussed?

Compare your answers with those found in the *Answer Key* on page 29.



Let's Learn

Aquatic ecosystems are ecosystems that can be found near or in bodies of water. They can be further classified into freshwater or marine ecosystems.

Freshwater ecosystems are those that can be found near or in bodies of freshwater. Examples of these are rivers, lakes, springs and waterfalls. While **marine ecosystems** are those that can be found near or in bodies of saltwater. Examples of these are oceans, seas and beaches.

Did you know that . . .

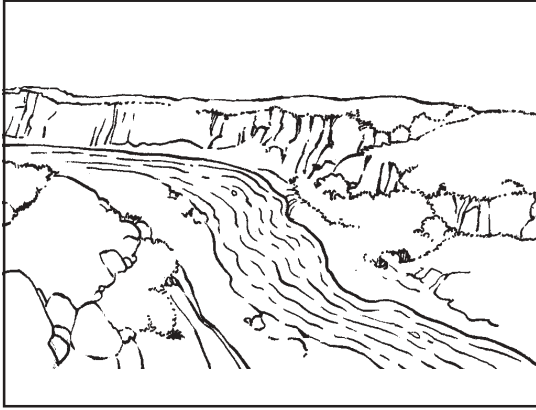
. . . only three percent of the world's water is fresh. Ninety-nine percent of this frozen in glaciers and pack ice or is buried in so-called **aquifers** or water tables.

. . . the rest of the world's water is saltwater.

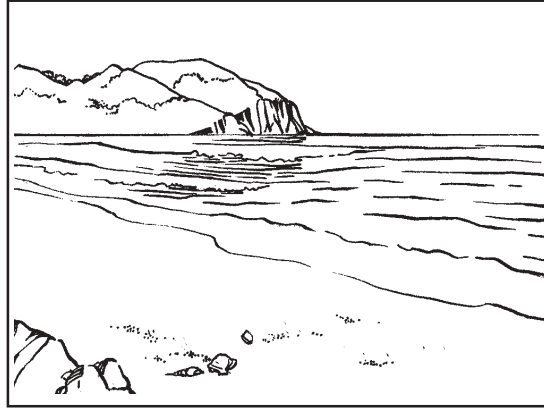


Let's Think About This

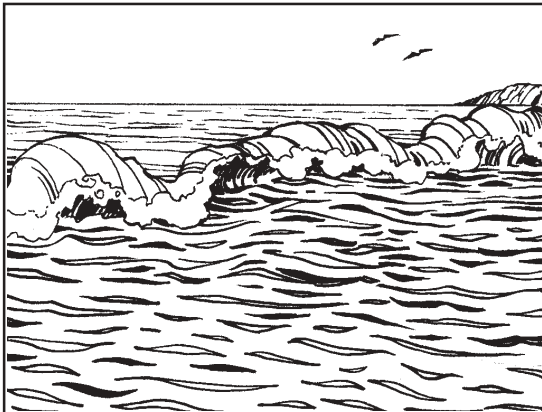
Identify the following pictures of different examples of freshwater and marine ecosystems.



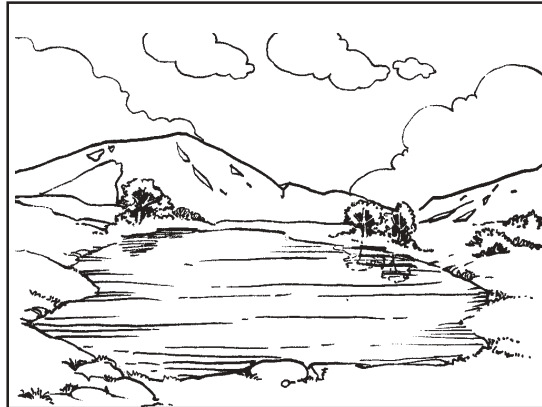
1. river



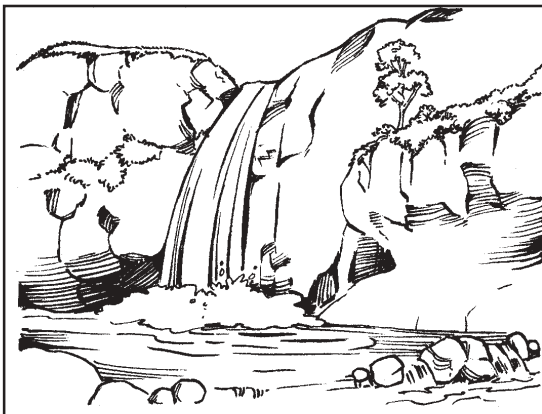
2. beach



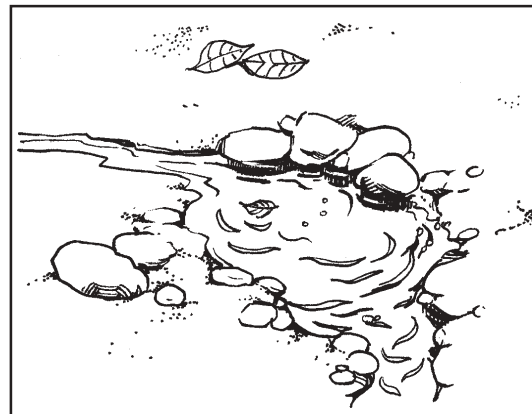
3. ocean



4. lake



5. waterfall



6. spring

Are you familiar with the aquatic ecosystems shown above? Have you ever visited any one of them? Cite the names of aquatic ecosystems you have been to. Write your answers in the space provided.

Compare your answers with those found in the *Answer Key* on page 30.



Write This

Choose one of the places you mentioned in the preceding activity. Write a short paragraph about this place.

Compare the paragraph you wrote with the example in the *Answer on* page 30.



Let's See What You Have Learned

Choose the correct answer to each. Write the letter of your answer in the blank before each number.

- _____ 1. An _____ is the relationship between all the living and nonliving things in a particular environment.
- a. ecology
 - b. ecosystem
 - c. economy

- _____ 2. Only _____ percent of the world's water is fresh.
- ninety-nine
 - forty
 - three
- _____ 3. Which of the following is not a freshwater ecosystem?
- ocean
 - river
 - waterfall
- _____ 4. Which of the following is not a marine ecosystem?
- beach
 - spring
 - sea
- _____ 5. Marine ecosystems are usually identified by the presence of _____.
- freshwater
 - pure water
 - saltwater

Compare your answers with those found in the *Answer Key* on pages 30–31. If you got a perfect score, that means you understood this lesson very well. You may go on to the next lesson. If you made some mistakes, that's okay, too. You just have to reread the lesson to understand it better.



Let's Remember

- ◆ An ecosystem is the relationship between all the living and nonliving things in a particular environment.
- ◆ An aquatic ecosystem is an ecosystem that can be found near or in a body of water. It can be classified as either a freshwater or a marine ecosystem.
- ◆ Rivers, streams and lakes are examples of freshwater ecosystems.
- ◆ Beaches, oceans and bays are examples of marine ecosystems.

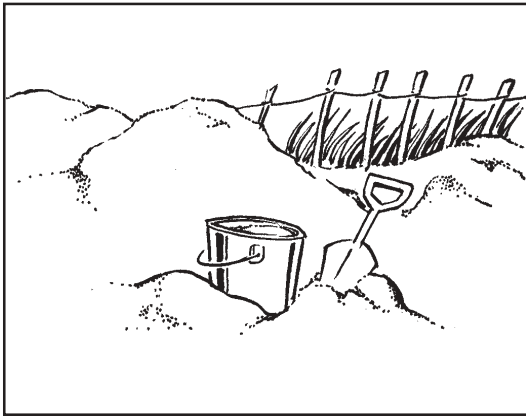
Water for Life

How well did you do in the first lesson? You have just learned what an aquatic ecosystem is. You found out that this module's focus is on the two types of aquatic ecosystems, namely: freshwater and marine ecosystems. It will give you an idea on why you should learn to conserve these ecosystems for your own good.

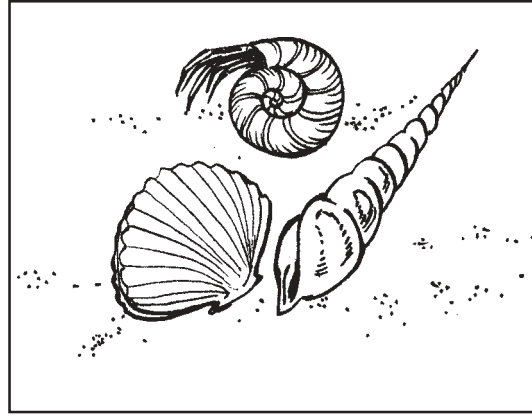


Let's Study and Analyze

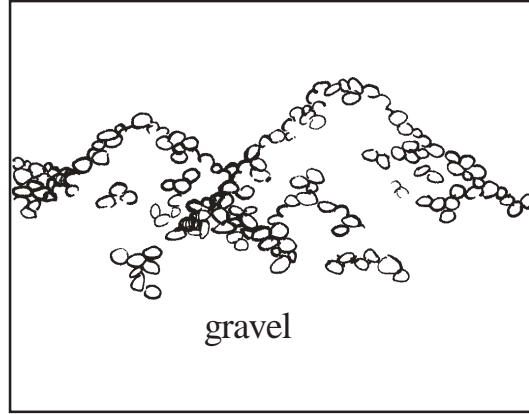
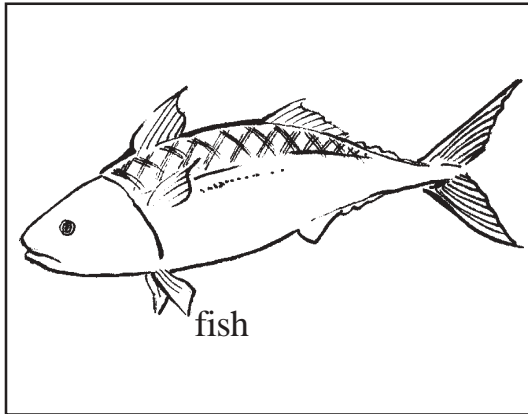
Study the following pictures. Notice that they show different resources that one can get from freshwater and marine ecosystems.



sand

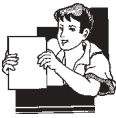


shellfish



Let's Think About This

The objects shown in the pictures in *Let's Study and Analyze* are only some of the resources which are available in freshwater and marine ecosystems. Some of these resources can serve as food for our continued survival (e.g., fishes, crabs and shrimps). While some can be used as raw materials in industrial processes (e.g., sand and gravel).



Let's Learn

About six percent of the world's fish catch or seven million metric tons per year come from freshwater ecosystems like rivers and lakes. Rivers and lakes are also crucial as transportation and shipping routes, as power sources and unfortunately, as waste sinks. The bulk of the world's irrigation water also comes from freshwater ecosystems. Some freshwater ecosystems in our country may also serve as tourist spots. Examples of these are the Taal Lake, Pagsanjan Falls and many others.

Marine ecosystems, on the other hand, can serve many purposes, too. They can be sources of food, raw materials and employment. Some, like oceans and seas, can also serve as transportation and shipping routes just like rivers and lakes. They can also be used as sources of electric power. Take, for example, the power plant in Maria Cristina Falls in Iligan City, Lanao del Norte. It provides electricity to the whole province. The plant uses **hydroelectric power** (see *Glossary*) to make its generators run thereby producing electricity for consumers.

Finally, just like freshwater ecosystems, marine ecosystems such as the coral reefs in Palawan and the beaches in Boracay can also serve as tourist spots.

Now you know how important our aquatic ecosystems are. They not only make our surroundings pleasing to the eyes. They provide us with some of our most basic needs, too.



Let's Try This

List down more resources that one can get from aquatic ecosystems. Write your answers in the space provided below.

Compare your answers with those found in the *Answer Key* on page 31.



Let's See What You Have Learned

Identify whether each of the following products is from a freshwater or a marine ecosystem. Write **F** for freshwater ecosystem and **M** for marine ecosystem.

- _____ 1. Pebbles
- _____ 2. Mussels
- _____ 3. Sharks
- _____ 4. Milkfish
- _____ 5. Crabs

Compare your answers with those found in the *Answer Key* on page 31. If you got all the answers right, that's very good. You may now proceed with the rest of the module. If you made some mistakes, you can reread this lesson before going to the next one.



Let's Remember

- ◆ Freshwater and marine ecosystems can give us food, raw materials and employment.
- ◆ Fish, gravel and rocks are some of the resources we can get from freshwater ecosystems.
- ◆ Corals, sand and saltwater fish are some of the resources we can get from marine ecosystems.

LESSON 3

Going, Going, Gone

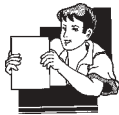
In the previous lesson, you have learned that the different aquatic ecosystems serve various purposes in our daily lives. This is the reason why steps should be taken to conserve whatever aquatic ecosystems we have left.



Let's Try This

Scan this week's newspapers and look for a news article about an environmental issue concerning any of our aquatic ecosystems (either freshwater or marine). Cut it out and paste it in the space provided.

Have your instructional manager or NFE facilitator check the clipping you pasted. You may also compare your clipping with the sample clipping in the *Answer Key* on page 31.



Let's Learn

Aquatic ecosystems are of great value to all living things especially humans. From these come resources such as food and raw materials and means of livelihood that we need in order to survive. Unfortunately, a lot of natural and man-made activities have been causing the depletion of both freshwater and marine ecosystems. This then leads to the decrease of the resources we get from them.

Natural activities that can cause the destruction of aquatic ecosystems include **cyclones** (see *Glossary*). Cyclones are violent tropical storms accompanied by heavy rain and very strong winds, often causing widespread destruction.

Destruction of aquatic ecosystems also occurs due to different man-made practices. These include using very fine nets in fishing, improper waste disposal, and **dynamite, cyanide** and **Muro-ami fishing** (see *Glossary*). These practices not only decrease the quantity and quality of the resources people can get, they also destroy the home of these resources.

If these harmful practices are not stopped, the future generations will surely not be able to enjoy the benefits that aquatic ecosystems give. We, the people who affect it, should therefore understand their value if we are to save them.

Did you know that . . .

. . . it has been found that some 34% of fish species, mostly from freshwater ecosystems, are threatened with extinction. In fact, freshwater ecosystems may have lost more species and habitats than any other ecosystem in the world.

. . . **channelization** and the building of dams are the two most dangerous threats to freshwater ecosystems today.

. . . **siltation** is one of the most common problems affecting aquatic ecosystems at present.



Let's See What You Have Learned

Match the items in column A with those in column B. Write the letter of the correct answer in the blank before each number.

Column A

- _____ 1. Food, raw materials and means of livelihood
- _____ 2. Cyclone
- _____ 3. Dynamite/
Cyanide fishing
- _____ 4. Tropical storm
- _____ 5. Muro-ami fishing

Column B

- a. a violent tropical storm accompanied by heavy rain and very strong winds, often causing widespread destruction
- b. a storm that occurs in the tropical regions
- c. the practice of pounding coral reefs to disturb and catch more fish
- d. the resources that people can get from aquatic ecosystems
- e. the practice of using dynamites/cyanide when fishing

Compare your answers with those found in the *Answer Key* on page 32. How well did you do in this lesson? Did you get a perfect score in the activity above? If you did, that's very good. You may then proceed to lesson 4. If you didn't, reread this lesson first before starting the next lesson.



Let's Remember

- ◆ Aquatic ecosystems give us food, raw materials and employment.
- ◆ Natural and man-made factors can affect aquatic ecosystems.

LESSON 4

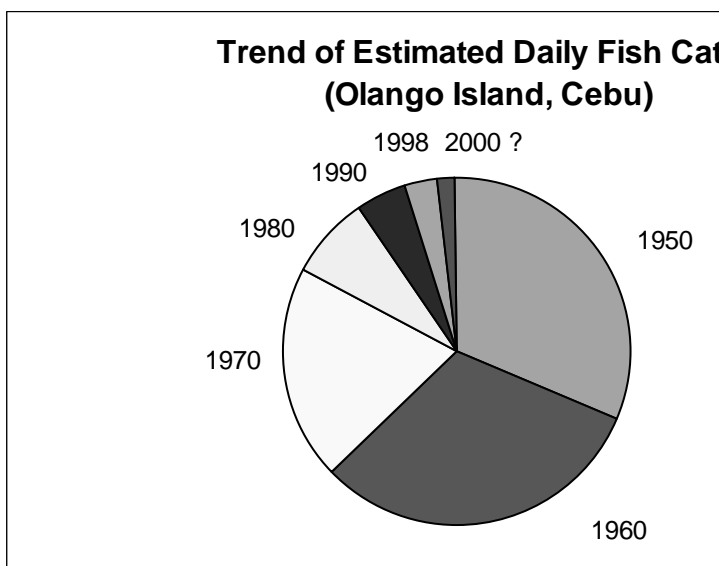
It's Never Too Late . . .

You have just learned about the various issues and problems that our aquatic ecosystems are facing at present. Do you think it is too late to do something to address these issues? What possible solutions can you think of for these?



Let's Study and Analyze

Look at the following graph. It shows how practices like cyanide and dynamite fishing and using fine mesh nets affect our marine resources.

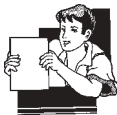




Let's Think About This

Based on the graph presented, what can you say about the state of our marine ecosystems at present? Write your answer in the space provided.

Compare your analysis with the one given in the *Answer Key* on page 32.



Let's Learn

The destruction of aquatic ecosystems leads to the depletion of the resources people get from them. Everyone should do his/her share in conserving whatever else is left of our aquatic ecosystems and resources at present. They must put a stop to harmful practices such as using fine mesh nets in fishing, dynamite, cyanide and Muro-ami fishing, improper waste disposal and the like. They should keep bodies of water free from pollutants and toxic materials so as to preserve the life forms in them.

But any progress towards attaining this goal must result from a whole range of factors: government projects and policies, appropriate media coverage, changes in technology and the involvement of all sectors of society.

The government, as the designated decision-maker of the country, should create projects and policies towards the conservation of aquatic ecosystems. Ultimately, the health of our aquatic ecosystems depends on its knowledge of ways to ensure proper use and protection of these resources. Projects like the *Piso para sa Pasig* and *Clean and Green* are very good examples of these. These encourage people to dispose of their wastes properly and thereby protect the environment from pollutants that can be harmful to ecosystems.

The government can also come up with more policies on saving aquatic ecosystems and resources like **Presidential Decree No. 1219** (The Coral Resources Development and Conservation Decree). This aims to promote and regulate the **exploration, exploitation, utilization and conservation** (see *Glossary*) of coral resources and to ensure the protection of these resources through other already existing laws. To promote these projects and spread information on new policies to be implemented, the government can use different media. It can then provide information about the environment that formal schools cannot give.

As far as giving out information about the environment is concerned, there is a clear relationship between the **media** (as “providers” of information on the environment) and the **public** (the “users” of such information). The role of the media is to collect and spread the information based on public interest. The public, on the other hand, will use the information and build an opinion based on the information the media provided.

Media play a key role in influencing public opinion. Much of the success of environmental organizations like the *Haribon Foundation* can be connected with their use of the different media. The organization, for example, gives out magazines to its members on how they can help conserve whatever is left of our aquatic ecosystems/resources. It also spreads information through its on-line magazine in the Internet. Through these efforts, more and more people can become aware of what is happening to the environment.

But this task is not just the sole responsibility of the media. To overcome the destruction of aquatic ecosystems, the people themselves need to respond in a unified way. This implies greater cooperation between people not only in a community, a region or a country, but in the whole world. This is why international organizations such as the United Nations (UN) have also taken steps towards this goal. In fact, the UN created the **Belgrade Charter** (see *Glossary*). This promoted a “new global ethic” to all its member countries that called for changes in the behavior and value systems of their individual citizens. The charter stressed that global change can only be achieved successfully if the public will be educated about the environment.

In the end, everyone must do his/her share if we are to conserve and protect the environment that supports and gives life to us.

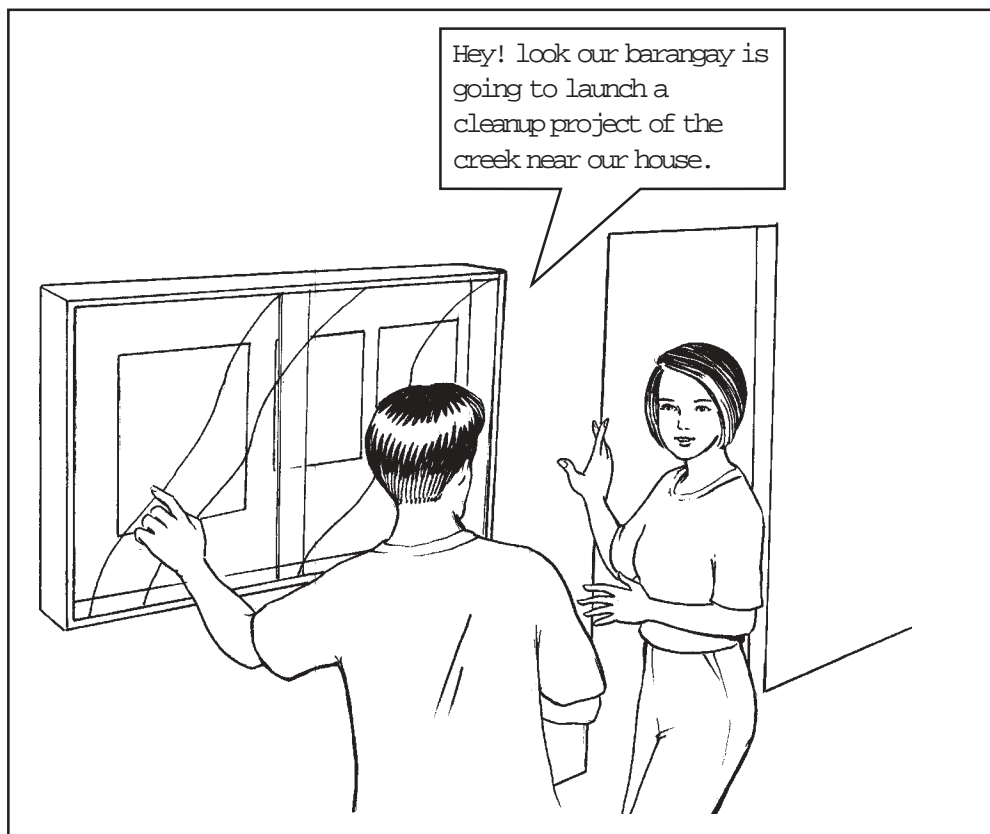
Did you know that . . .

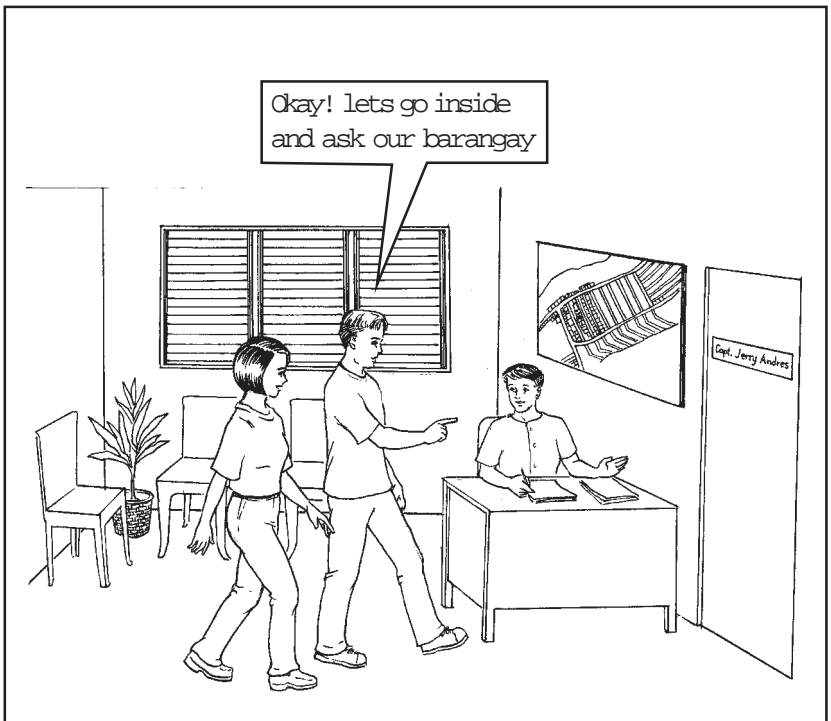
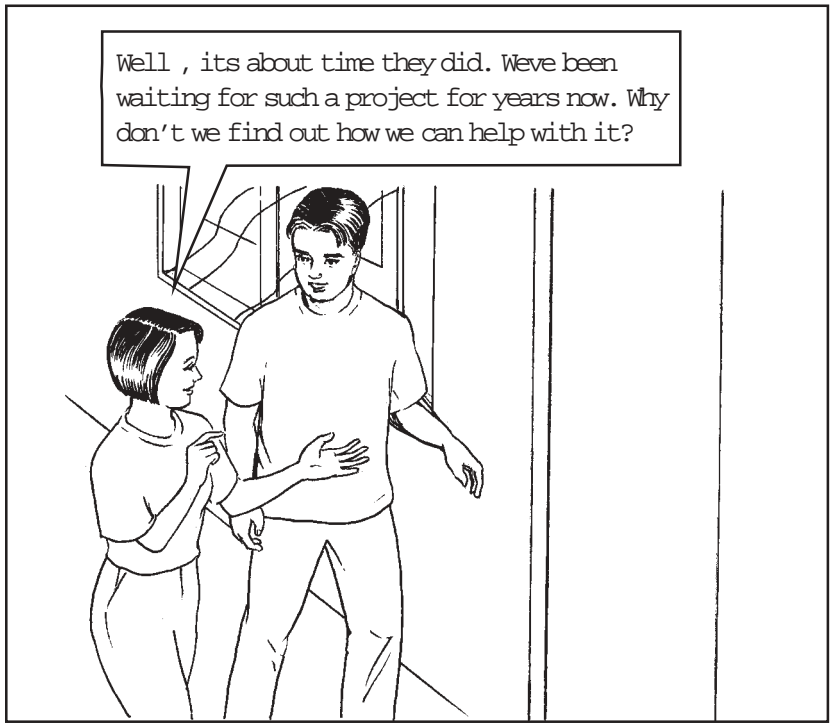
. . . a certain body of water is a balanced ecosystem which interacts with the surrounding air and land. Whatever occurs on land and in the air also affects the water.

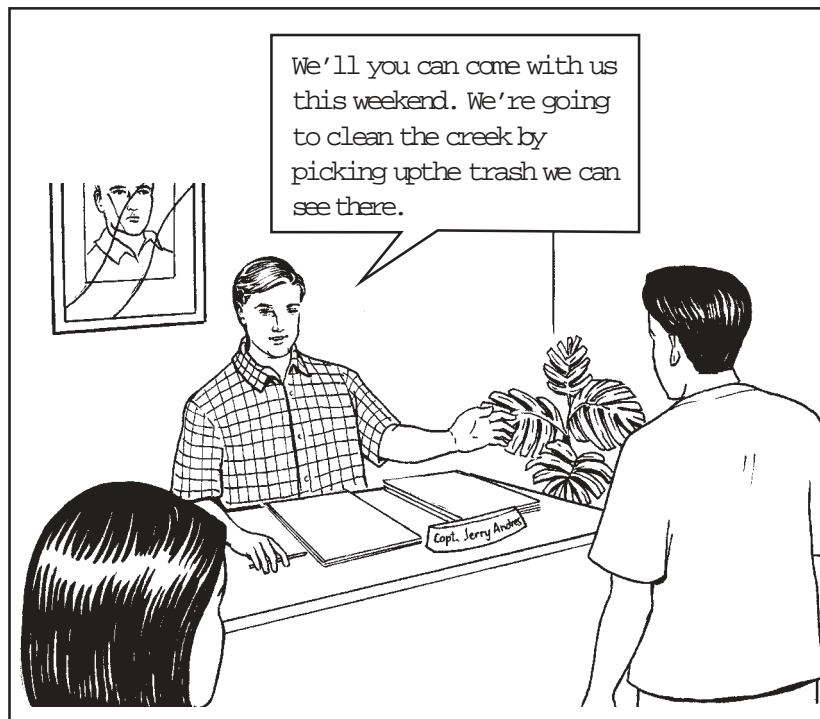
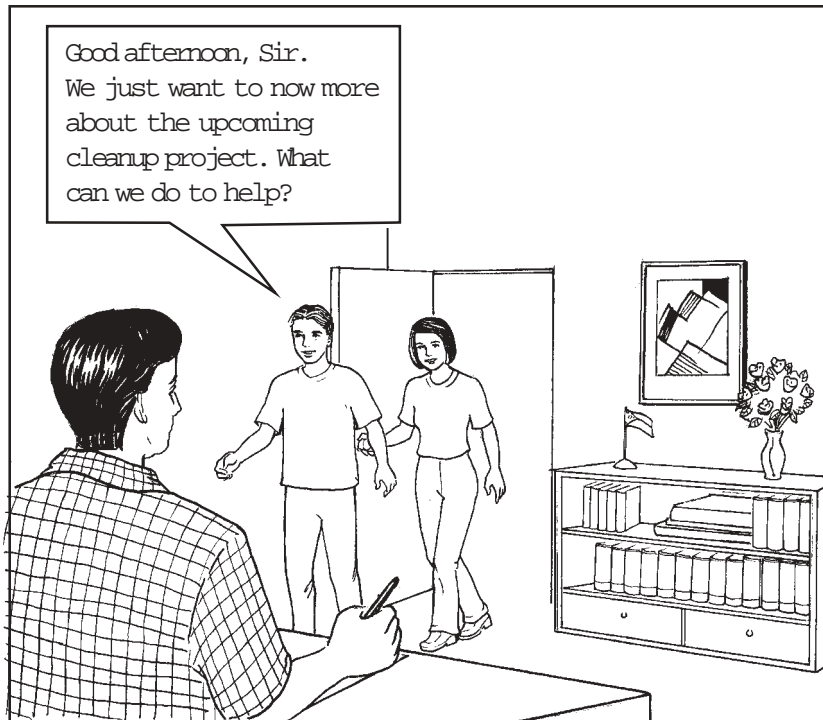


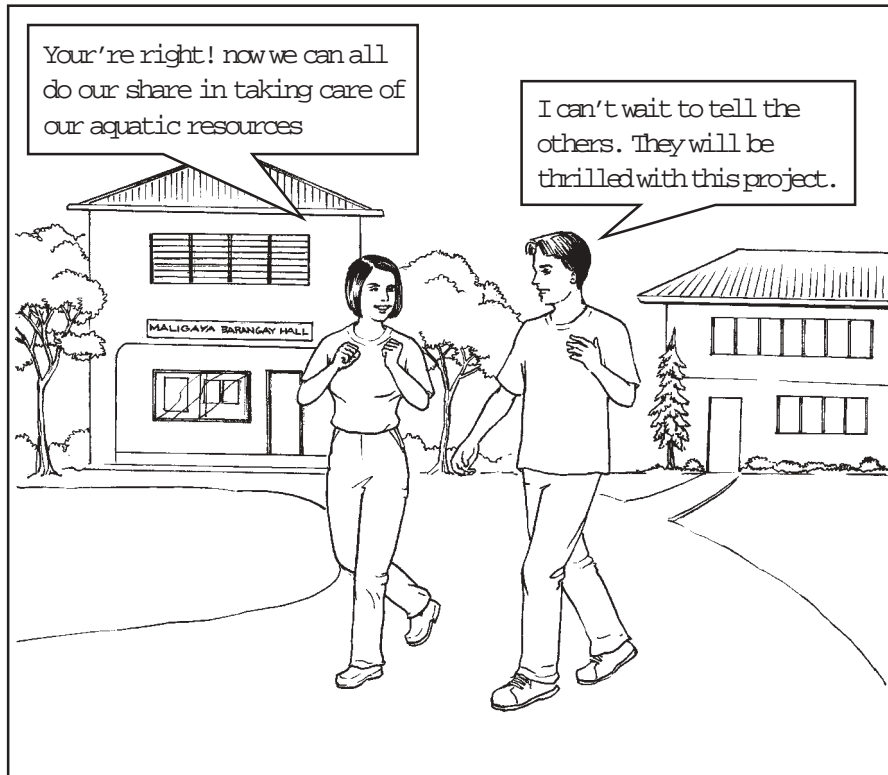
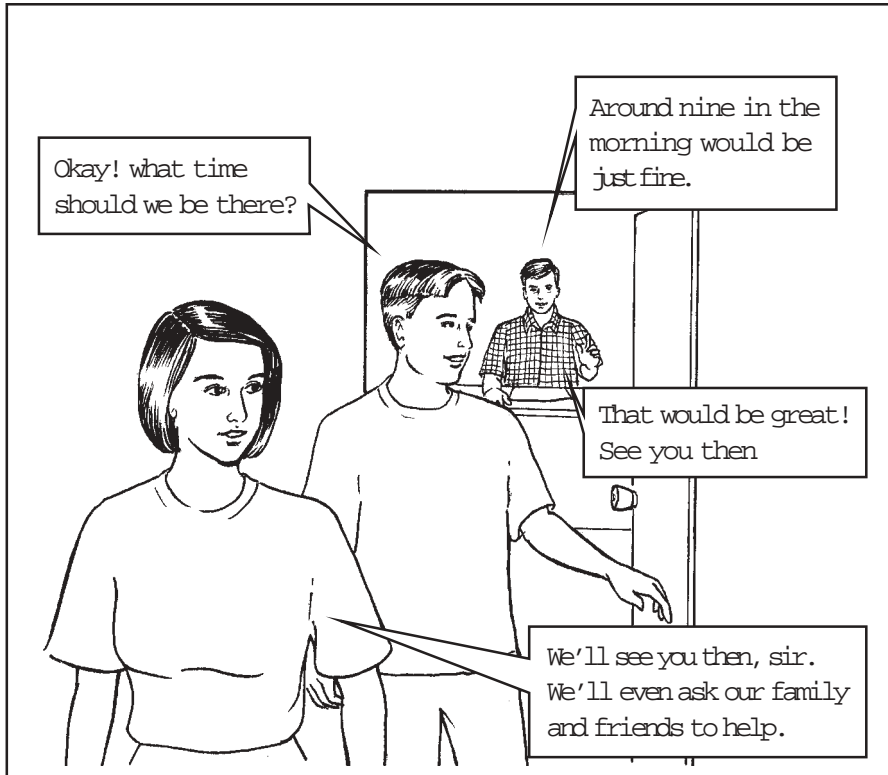
Let's Read

Read the following comic strip. It will give you an idea on what you can do to help solve the environmental problems our country is facing at present.







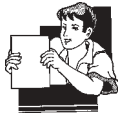




Let's Think About This

What can you, as a Filipino citizen, do to help solve the various environmental issues and problems our country is facing today? Write a short paragraph about this in the space provided.

Compare your composition with the example in the *Answer Key* on page 32.



Let's Learn

Each person can do his/her share in conserving aquatic ecosystems/resources. You, for example, can join in activities that are aimed towards this goal. There are, as stated earlier, different projects by the government and nongovernment organizations that you can get involved in to help with this cause.



Lets See What You Have Learned

Write **T** if the statement is true. If it is false, change the underlined word or phrase to make it true.

- _____ 1. Unity and cooperation are not needed in overcoming the degradation of our aquatic ecosystems.
- _____ 2. The UN Belgrade Charter suggested a “new global ethic” which promotes changes in the behavior and value systems of individual citizens.

- _____ 3. The media are considered the “providers” of information on the environment.
- _____ 4. The public, on the other hand, are considered the “users” of this information.
- _____ 5. We, as citizens of the Philippines, do not have a role to play in the conservation of our aquatic resources.

Compare your answers with those found in the *Answer Key* on pages 32–33. Did you do well in this lesson? I’m sure you did!



Let's Sum Up

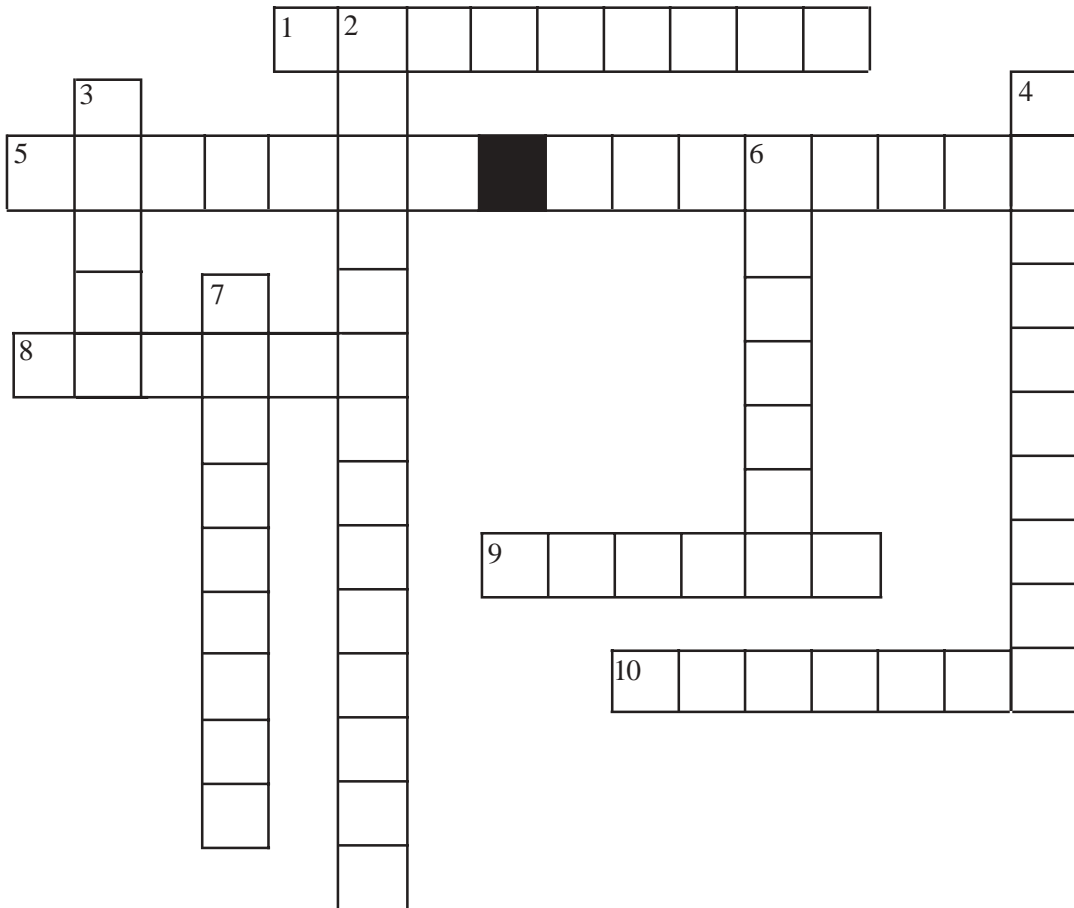
This module tells us that:

- ◆ aquatic ecosystems are the relationships between all the living and nonliving things in freshwater and marine bodies of water;
- ◆ freshwater and marine ecosystems are important because they give us food, raw materials and employment; and
- ◆ cooperation and unity are important if we want to conserve whatever ecosystems we have left at present.



What Have You Learned?

Answer the crossword puzzle below using the given clues.



Across

1. An _____ is the relationship between all the living and nonliving things in a particular environment.

Down

2. _____ is the process of building paths to control the flow of water.

5. The _____ promoted a “new global ethic” which called for changes in the behavior and value systems of individual citizens.
8. _____ ecosystems include beaches, bays, seas and oceans.
9. The _____ are considered the “users” of the information the media provide.
10. An _____ is also known as a water table.
3. The new _____ serve as “providers of information on the environment.
4. _____ ecosystems can be classified into two types: freshwater and marine ecosystems.
6. _____ ecosystems include river, lakes and springs.
7. _____ is a process wherein soil fills up nearby bodies of water.

Compare your answers with those found in the *Answer Key* on page 33. Did you get a perfect score? If your answer is yes, that’s very good! It means you learned a lot from this module. You may now move on to the next module.



Answer Key

A. Let's See What You Already Know (*pages 2–3*)

1. b
2. a
3. a
4. b
5. a
6. b
7. a
8. b
9. c
10. a

B. Lesson 1

Let's Review (pages 6–7)

1. The news article is about the current state of the San Miguel Bay area in Calabanga, Camarines Sur.
2. The Haribon Foundationre, a nongovernment organization which aims to conserve our natural resources, was mentioned in the article.
3. They hope to inform the people in the San Miguel Bay area of what is happening to their environment. They also want them to do something to prevent further destruction of their remaining resources by giving them some information on the problem.
4. The continuous depletion of resources in the San Miguel Bay area was discussed in the article.
5. It was concluded that the San Miguel Bay at present is “fished to the limit.”
If the answers to the question may vary. They are based on your own opinion.

Let's Think About This (page 8)

1. river
2. beach
3. ocean
4. lake
5. waterfall
6. spring

The answers to the additional questions may vary. So don't worry if you didn't get the exact answers given below. They are based on one's personal experiences.

Possible answers:

Yes, I am familiar with some of them. I have been to places like Aguila Beach Resort in Anilao, Batangas Hinulugang Taktak Falls in Antipolo, Rizal, a hot springs in Los Baños, Laguna, etc.

Write This (page 9)

The answers to this activity may also vary. They are dependent experiences. But a sample answer is given below to guide you in checking your work.

Sample composition:

Last summer, my family and I went to Matabungkay Beach in Lian, Batangas. We went swimming, snorkeling and jet skiing there. We saw lots of fishes and other sea creatures. The water was so clear and clean, you could see your feet every time you look down. It was the best time I had on a beach. I had so much fun, I would have stayed there forever if I could.

Let's See What You Have Learned (pages 9–10)

1. ecosystem
2. three
3. ocean
4. spring
5. saltwater

C. Lesson 2

Let's Try This (page 13)

The answers to this may vary. But below is given a sample answer to guide you in checking your work.

Possible answer:

Other aquatic resources include: clams, squids, mudfish, catfish, tilapia, etc.

Let's See What You Have Learned (page 13)

1. F
2. M
3. M
4. F
5. M

D. Lesson 3

Let's Try This (page 15)

The newspaper clippings for this activity may vary depending on your source. Below is a sample clipping to guide you in checking your work.

Sample newspaper clipping:

Dioxin Scare Hits RP

The Department of Agriculture (DA) issued an administrative order banning imports from Belgium, France, the Netherlands and Germany such as feeds, milk and milk products and frozen meats. The DA stressed that import permits for the enumerated products originating from other countries of the European Union “shall be issued only upon certification by the duly authorized veterinary officer in the exporting country that the products is free from dioxin contamination.” Dioxin is one of the most toxic man-made chemicals known. Once released, dioxin remains in the environment because it cannot be effectively broken down by natural bacteria. Its concentration in animal tissues gets higher as it moves up the food chain.

Let's See What You Have Learned (page 17)

1. d
2. a
3. e
4. b
5. c

E. Lesson 4

Let's Think About This (page 19)

The answers to this activity may vary. Remember that it is based on one's own interpretation of the graph presented. But given here is a sample analysis to guide you in checking your work.

Sample analysis:

The graph in the activity showed that before the use of cyanide, dynamites and fine mesh nets in fishing, fishers could continuously decreased over the years. The graph implies that if we want to catch more fish, the said practices must be stopped.

Let's Think About This (page 25)

Sample composition:

As a Filipino citizen, I can help solve the environmental problems we are facing today by doing my share in cleaning up the surroundings. I can help by disposing of wastes properly. I won't throw trash into bodies of water. This way, water pollution will be

Let's See What You Have Learned (pages 25–26)

1. are needed —Individuals cannot take on the task of conserving aquatic resources alone. Everyone has to work to achieve this goal.
2. T
3. T
4. T
5. have – Everyone should make an effort to conserve our aquatic resources.

F. What Have You Learned? (*pages 27–28*)

1. ecosystem
2. Channelization
3. media
4. Freshwater
5. Belgrade Charter
6. Aquatic
7. Siltation
8. Marine
9. public
10. aquifer



Glossary

Aquatic ecosystem An ecosystem that can be found near or in a body of water

Belgrade Charter A charter created by the UN which promoted “a new global ethic” that called for changes in the behavior and value systems of individual citizens

Biological diversity The state of having different kinds of biological organisms in an ecosystem

Channelization The process of building paths to control the flow of water

Conservation The complete preservation or limited harvesting of coral resources so as not to negatively affect marine ecosystems

Cyanide fishing The process of fishing using a poisonous chemical called cyanide

Cyclone A violent tropical storm accompanied by heavy rain and very strong winds, often causing widespread destruction

Dynamite fishing The process of fishing using dynamites

Ecosystem The relationship between all the living and nonliving things in a particular environment

Exploitation The actual gathering and collection according to acceptable coral development and conservation practices

Exploration The preliminary surveys within a specific area

Freshwater ecosystem An ecosystem that can be found near or in a body of water

Haribon Foundation The oldest environmental organization in the Philippines

Hydroelectric power Electrical power generated from the energy produced by falling water

Marine ecosystem An ecosystem that can be found near or in a body of saltwater

Media The “providers” of information on the environment

Muro-ami fishing The practice of pounding coral reefs to disturb and thereby catch more fish

Presidential Decree No. 1219 The Coral Resources Development and Conservation Decree which aims to promote and regulate the exploration, exploitation, utilization and conservation of coral resources. It also aims to ensure the protection of these resources through other already existing laws

Public The “users” of the information the media provide

Resource Anything that can be of use to people

Seabed The bottom or floor of the sea

Siltation The process wherein soil fills up nearby bodies of water

Utilization All operations involved in producing, processing and converting raw corals into finished products



References

- Environment Canada. *Freshwater: Aquatic Ecosystems—Introduction*. www.ec.gc.ca
- Haribon Foundation. www.haribon.org.ph
- Tahir, Farrukh. “An Examination of the Role of Environmental Education in Building Sustainable Societies.” *Convergence*. Vol. 28, No. 4. 1995, pp. 16-22.
- Filho, Walter Leal and Monica Villa Bandeira. “Media and Environmental Education.” *Convergence*. Vol. 28, No. 4. 1995, pp. 55-60.
- Presidential Decree No. 1219. www.bknet.org
- The Coastal Resource Management Project Philippines, et al. *Coastal Resource Management for Food Security*. Makati City, Philippines: Bookmark, Inc., 1999.
- Warner Aquatic Resources, Inc. *Tiny Tank: Anywhere Mini-Aquarium*. www.tinytanks.com
- World Resources Institute. *Decline of Freshwater Ecosystems*. www.gregm@wri.org