CHAPTER 24

OUR RENEWABLE AND DEPLETABLE NATURAL RESOURCES

24. 1. WHAT IS A NATURAL RESOURCE?

24. 1. 1. Natural Resources Defined

Do you remember the definition of what a *resource* is from the end of our first chapter? If not, please go back and take a quick look. Now we want to define what a *natural resource* is.

Natural resources are resources that exist in the natural environment. Trees, minerals, fish, soil, plants, crops, animals, air, water, sunlight, and other naturally-occurring resources are natural resources.

Natural resources are resources that exist in the natural environment.

But, again, what is a resource? Resources are simply things that we use directly, or that we use to make other things. These made or manufactured things might be big things like cars or trucks, or small things like toothbrushes.

Many resources that go into the making of a car, truck, or even a toothbrush are not natural resources. Plastic, for example, is a *man-made* resource. Plastics are usually made from petroleum products. Petroleum products are made from oil and gas mined underground. Sometimes plastic products are made from *recycled* plastic products.

Should we think of plastic as a natural resource because it is made from oil? No, not really. The natural resource is the oil used to make the plastic, not the plastic itself. In the case of recycled plastics, the question becomes a bit more cloudy.

We call plastic a man-made or *non-natural* resource. Plastic is a good example of how natural resources can be used to make things. Try to think of other natural resources used in this way, and some of the products that are made from them.

24. 1. 2. Factor Inputs

Now, play a game with a friend. One of you pick an object, like your shoe, for example. Then, challenge each other to find some part of your shoe that was made without natural resources.

If you think you have found such a part, try to find out how it was made and what it was made from. Learn whether the things used

to make it are natural resources or not. A dictionary and an encyclopedia might be good places to begin to research this.

While researching, keep in mind that parts made by using machinery probably used fuel to run the machinery. If the machinery used electricity, then that was generated from a natural resource.

Even solar panels use a natural resource, our sun.

For example, hydroelectricity is produced by water, which is one of our most important natural resources. Even solar panels use a natural resource, our sun. So, with this in mind, try to find any item around you that was made without any natural resources at all.

Natural resources are used to make things. Economists call them *inputs to production*, or **factor inputs**. Are natural resources only inputs to production? Think about how we use water. We drink it, we wash with it, and it is used in many ways in manufacturing. So, water is not only an input to production in manufacturing, but it is also used by each of us directly.

24. 1. 3. Resource Scarcity

Several manufacturers might want to use the same rock or wood to help build a factory. Several businesses might want to use the same fish to sell to people who do not catch fish themselves.

Some investors might want to use the same land being considered for designation as a public park at a particular beach to build a tourist hotel. This means that each has to compete with others who want to use these same resources.

What happens if there are not enough of these resources to go around? Economists call this **resource scarcity**. It means the resources that we have are *scarce* and people are competing for them. In fact, **economics** is often defined as the analysis of how best to divide scarce resources amongst the people who are competing for them.

Fish hatch from eggs, grow, and some can then be caught and eaten.

Are all resources equally scarce? Some resources are **finite**. This means that only a fixed quantity of these resources exist on earth. Such resources are known as **depletable resources**. Other resources can *regenerate* or renew themselves. These resources are called **renewable resources**. What are the differences between renewable and depletable resources?

24. 2. RENEWABLE NATURAL RESOURCES

24. 2. 1. Renewable Resources Defined: the Example of Fish

A renewable natural resource is a natural resource that can replace itself through growth. For example, fish hatch from eggs, grow, and some can then be caught and eaten. The remaining fish then reproduce and the whole process starts again. In this way, fish renew themselves.

The ability of fish to renew themselves depends on the ability of the marine environment to renew itself. The natural environment must be able to provide a healthy food chain so the fish can eat.

This process of renewal might take as little as a year or two for some shellfish such as shrimp. It can also take as much as 30 years for some of our most long-lived fish like grouper, or blue marlins.

Renewability requires that enough fish remain in the environment to continue this cycle. If all the fish are caught, then none are left to renew the population.

24. 2. 2. Trees and Agricultural Crops

Trees grown on a tree farm are another good example of a renewable resource. Just like fish, trees grow over time, until they are big enough to be cut. Then they are made into lumber, or ground into pulp to make paper.

Trees are renewable because they can be replanted. They're grown until they reach a size big enough to cut them down. Some trees can renew themselves in as little as 10 years, but others can take as long as 100 years or more before reaching a harvestable size.

Of course it takes 3,000 years to grow a 3,000 year old redwood tree, such as those found in some of our national parks. It would be a bit of a stretch to call such old growth forest trees 'renewable'.

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Agricultural crops, like trees, are renewable because new crops can be planted each planting season. Agricultural crops grow much more quickly than trees and sometimes several different crops can be grown on the same plot of land in one growing season.

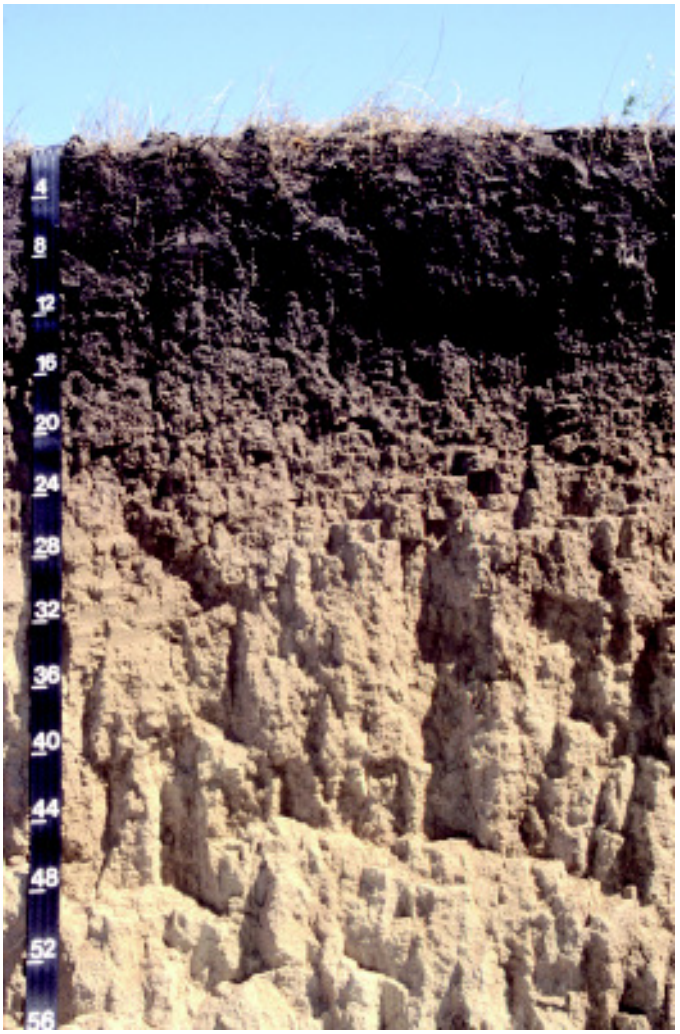
24. 2. 3. Resources as Factor Inputs to Other Resources

We have now seen how natural resources are factor inputs to production processes. With this in mind, let's ask ourselves if natural resources can be factor inputs to the production of other natural resources. Think about trees and crops. What do they both require?

They must at least have land, soil, water, and good weather. Some fertilizer might also be necessary. Land is itself a natural resource, as are soil and water. Are land, soil, and water all renewable natural resources?

24. 2. 4. Soil

Soil is made up of many mineral and organic components and is very different in different parts of the world. All good soils contain some quantity of organic material that comes from the decomposition of animal or vegetable wastes. This organic component is called **humus**.



Soil is made up of many mineral and organic components and is very different in different parts of the world.

Humus gives the soil fertility to grow crops or trees. Humus is the renewable component of soil. It can be increased by using compost or other organic compounds, such as fish meal. We can also improve the fertility of soil by adding man-made fertilizers. Thus, soil is a renewable resource.

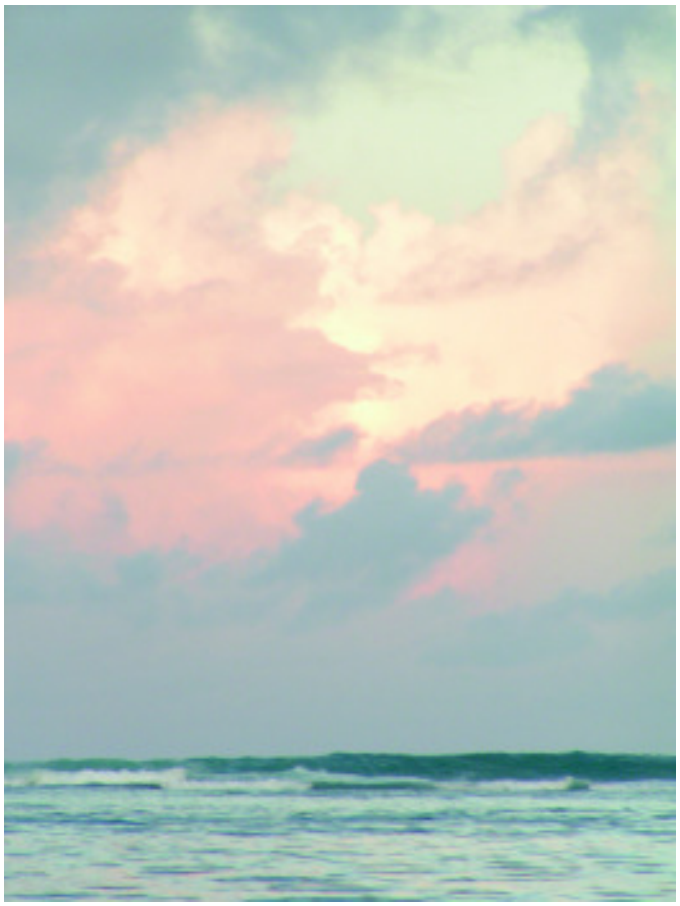
If we do not add these things to soil that we have used to grow crops, we can deplete the nutrients in the soil. Soil that is continually depleted reaches a point when little or nothing will grow in it.

24. 2. 5. Water

Water is also a renewable resource. It is refreshed by rain. The rain collects in pools, drains into streams and lakes, and even seeps down into the earth. There it joins the groundwater.

We can get water from lakes or streams. We can even drill wells to draw up groundwater. Water is renewable because the natural processes of the earth's atmosphere renew our supply.

Overuse of the available water supply can lead to shortages and to a poorer quality of water. Overuse causes us to spend a lot of money on new ways to get more water, such as **desalination**. Even if we do not overuse water, we can threaten its quality, availability, and renewability by polluting it.



Air and water are critical factor input resources.

24. 2. 6. Air

Just as we depend on the natural environment to provide water, we also depend on it to provide the air we breathe. Air is an input to our ability to live, as well as to the ability of trees and plants to grow.

We have mentioned several types of renewable natural resources, but there are many more specific kinds. See if you can identify a few others around your home.

24. 3. WHEN IS A RENEWABLE RESOURCE NO LONGER RENEWABLE?

Renewable resources depend on nature for their ability to regenerate. Fish are one of the best examples of such resources. Fish can be harvested by people.

Fish that are not harvested will reproduce, creating more fish that can be harvested at a later time. However, reproduction requires a good natural habitat for the fish. Additionally, if we harvest too many fish too quickly, there might not be enough to reproduce for future harvests.

What might happen if we keep harvesting fish without waiting long enough to allow regeneration? As we begin to overfish, fewer fish are left to reproduce. If we continue to overfish, we will continue to reduce the number of fish remaining that can reproduce. Eventually, the remaining fish cannot reproduce enough to allow harvesting. In such cases, the resource has been depleted beyond sustainable levels.

Usually, we stop overfishing before the stock gets that small. However, in several fisheries around the world, and even in the United States, overfishing has led to a government-required complete closure of all fishing for certain species.

Overfishing is not the only reason why a fishery resource may be depleted. Sometimes the natural habitat fish depend on for their survival may be damaged or altered.

The big fish we catch to eat, like tunas, eat smaller fish, squid, and shellfish that consume even smaller sea life. If any one of these parts of the food chain is depleted because of habitat damage, it

will eventually have an effect on the larger fish. Even smaller reef fish and shellfish like crabs and lobsters, depend on a healthy food chain for their survival.

24. 4. NON-HARVEST VALUES OF OUR RENEWABLE RESOURCES

24. 4. 1. Non-Harvest Values

We tend to think of renewable resources as things that we can harvest many times. However, there are other values that can be attached to renewable resources.

Forests, especially old growth forests (mentioned above), might be thought of by some as just wood that can be used for construction. Or we might just think of the value of the land if it were cleared to grow agricultural crops.

However, forests that are not parts of tree farms provide habitat to many species of birds, mammals, insects, reptiles, and even fish. Forests provide the air we breath by absorbing carbon dioxide and producing oxygen. Forests also capture and purify water, stabilize and improve soils, and purify the air.

Forests that are not parts of tree farms provide habitat to many species of birds, mammals, insects, reptiles, and even fish.

24. 4. 2. Environmental Services of Protected Conservation Areas

Forest or habitat areas are sometimes set aside and protected from the harvest of their resources or the development of their lands. It might seem that setting aside land in protected areas reduces available resources.

It is true that we cannot harvest the resources in protected areas. However, the protected area is still a natural resource that provides such things as habitat, air and water purification, and soil stabilization.

We call these things **environmental services**. The resources they produce are called environmental resources. Environmental resources are very important because they help make it possible for us to live in our environment.

24. 5. DEPLETABLE NATURAL RESOURCES

24. 5. 1. Depletable Resources; Oil and Minerals Examples

There is another category of natural resources called **depletable natural resources**. Depletion means to use something up.

So, a depletable natural resource is one that we can use up. When it is all used up, there is no more. Therefore, we cannot renew this resource through growth or natural reproduction.

Oil is a good example of a depletable natural resource.

Oil is a good example of a depletable natural resource. The oil that exists in the earth today is all the oil that will exist for the foreseeable future. When we find and use it all, it will be gone forever. Thus, oil is a depletable resource.

Minerals, such as coal, iron, and gold, to name just few, are also depletable resources. As we dig them up, we are depleting them. If we can find and extract all of them from the earth, they too will eventually be fully depleted.

The striped bass had suffered from overfishing, but also from extensive loss of habitat.

24. 5. 2. Resource Depletion of Renewable Resources: the Fish Example

We now know what a depletable resource is. However, can a renewable resource become a depletable resource? What would have to happen for a renewable resource to become depletable?

We said earlier that fish require good habitat and a large enough breeding population to replace fish lost through natural mortality and harvest by people. If the breeding population is too small, then breeding will not be able to replace the fish that die or are harvested. If the habitat that the fish need to live in becomes polluted or damaged, then the fish may not be able to reproduce.

Thus, if we harvest too many fish, or damage their habitat, the population becomes depleted. Continued harvesting in such circumstances could fully deplete the fish population, leading to extinction.

However, if we stop harvesting for a period of time, it may be possible for the fish to reproduce and for the population to increase. This was the case with a fish called the striped bass (*Morone saxatilis*).

This fish lives in waters off the east coast of the United States. The state of Maryland was forced to close all fishing for striped bass. After ten years it was able to *re-open* a commercial fishery in 1997.

The striped bass had suffered from overfishing, but also from extensive loss of habitat. For these reasons, the recovery of the striped bass involved extensive habitat restoration costs and took a long time. [Ed. note: Although not a local example, still the case of the striped bass is illuminating and lends support to the arguments for responsible local fisheries and land use management from the outset. See our chapter on Fisheries (Ch. 27) for more information on how to manage our local fishery resources wisely.]

24. 5. 3. Renewable Resource Depletion; Other Examples

Fish provide a good example of a renewable resource that can be depleted. Many other renewable resources can also be depleted.

Soil is another good example. We rely on soil to grow our food. What would happen if we didn't rest or replenish a soil and it no longer held the nutrients necessary to grow our food?

We could use inorganic fertilizers, but eventually the soil would become depleted of all natural organic matter. Then it would no longer be able to hold water for plants to use. If this happened, we would have to use large quantities of water brought in by irrigation.

Water is another renewable natural resource that can be depleted. It takes a long time for water to seep through the ground. It takes time to fill up the underground aquifers that hold our groundwater. If we remove too much water in a short period of time, we may deplete the available water supply.

A depleted water supply, combined with depleted soils, will easily result in a depleted food supply. We must be careful how we use our resources. We must ensure that renewable resources are used only in renewable amounts.

24. 6. LAND FORMS AS NATURAL RESOURCES

Certain land forms are natural resources. These natural resources are not really renewable or depletable. Such land forms include natural bays for harbors, and large, long flat areas for airports.

Each of these forms is important to our island economy. Without a good harbor, we could not cost-effectively import raw materials and supplies, nor export manufactured goods.

Imagine what it would cost to fly everything in. Consider what would happen if all of our islands were so mountainous that we could not have an airport. Then we would not have the tourist industry that we have. It is easy to see that these land form resources are very important to our economy.

24. 7. RENEWABLE RESOURCES OF THE CNMI

24. 7. 1. Fish

The fish resources of the islands are one of our most important renewable resources. Reef fish, oceanic fish, and deep bottom fish are all important fish for our people.

These fish are caught for personal consumption, for recreation, and for commercial sale. If our islands' waters are overfished, our food supply would be affected, as would our tourism industry.

The fish resources near our islands are one of our most important renewable resources.

24. 7. 2. Soil

Another renewable natural resource of our islands is the soil. Soil is necessary for agriculture. However, it is in limited supply in the Commonwealth. The average depth of our soils is less than 30 inches. Many areas have little or no soil at all.

Soils in lowland areas are much more fertile than most highland soils (with the Sabana of Rota being an exception due to its higher rainfall). Highland soils are mostly lateric clays derived from volcanic rock and ash, which are not very good for growing crops.

Lowland soils have a much greater content of organic matter from years of decomposition of leaves and grasses. The limited soils of the Commonwealth result in only about 1,500 acres of land, or about 5%, being considered good to fair for agriculture.

24. 7. 3. Water

Water is one of the most important of all renewable natural resources. We depend on water for drinking, growing crops, washing, removing wastes, and many other uses. But, we are not the only users of water. All plants, mammals, fish, birds, and even insects depend on water for survival as well.

Unfortunately, our water resources are quite limited. They have been overused in some places. On Saipan, much of the drinking water supply at the present time is brackish and contaminated by

saltwater. The Commonwealth Utilities Corporation and cooperating CNMI and Federal agencies are working very hard at present to address this problem.

However, Rota and Tinian have clean water and sufficient supplies to meet current needs. Luckily, we can also rely on rainwater for most of the year to meet our needs for agriculture and animal and plant life. However, we must be careful not to pollute our environment, especially our water supplies.

Reef habitats are the breeding and rearing grounds for many kinds of fish and coral.

24. 7. 4. Coral Reef Habitats

The islands of the Commonwealth enjoy the benefit of many coral reef habitats. There are patch reef habitats on Saipan, Tinian, and Rota. Fringing reef habitats exist on each of our southernmost islands.

In addition, on Saipan we have our fantastic barrier reef enclosing our wide lagoon. The largest reef in the Marianas archipelago, however, is that which surrounds the CNMI island of Farallon de Medinilla. You will recall that this island is regularly bombed at present by US military forces for training purposes.

These reef habitats are the breeding and rearing grounds for many kinds of fish and coral. They are vitally important for local subsistence, and even for commercial fisheries.

Our reefs also protect our shorelines from surf that could easily erode the shore. The reef habitat also provides opportunities for recreation like snorkeling and SCUBA diving. These recreation forms are important to promote tourism.

If our reefs were destroyed, the results would be disastrous for the islands. Fishing would be affected, tourism would suffer, and the islands would begin to quickly erode, depleting the land area. Sadly, just such a situation occurred in 1996. With far too much haste, and little counsel, government decision-makers decided that the discovery of submerged ordnance off of Rota constituted a major hazard and declared a state of emergency. Then they ordered its detonation, destroying much of the former “Coral Gardens” patch reef in Rota’s Sasanhaya Bay Fish Reserve.

Our forest, savanna and wetlands habitats are important resources in the Commonwealth.

A follow up assessment evaluated the extent of the damage. It was estimated that the destruction of the resource was equated to the loss of tens of millions of dollars.

24. 7. 5. Forest, Savanna, and Wetlands Habitats

Forest, savanna, and wetland habitats are important resources here in our Commonwealth for several reasons. One is that they provide the environmental services of air and water purification. Trees and plants absorb carbon dioxide, create oxygen, and filter water. Our forests and grasslands provide habitat for birds, mammals and other animals. Wetlands filter water and provide habitat for aquatic animals and fish.

These habitat areas also provide opportunities for recreation such as bird and wildlife watching. These opportunities can become very important and are a critical part of a type of tourism known as **ecotourism**.

Our Commonwealth has several significant wildlife habitats. On Saipan, the Marpi forest is one example of an area that offers recreational opportunities for hiking and for bird and animal viewing. The *Seabird Sanctuary* protected area, on the southeast coast of Rota, offers similar opportunities. This sanctuary may become a significant ecotourism site in the near future.

These are just two examples of many important wildlife habitats here in our Commonwealth. If they are not protected and kept renewable, impacts on clean water, clean air, and fish and wildlife would be felt.

Actually, some of these impacts are already being experienced. Some species of wildlife such as our Mariana Crow, our Island Swiftlet, and our Marianas Fruit Bat are already threatened with extinction.

Protecting wildlife habitats is a challenging part of natural resource management here in our Commonwealth.

Our forests and grasslands provide habitat for birds, mammals, and insects.

24. 8. DEPLETABLE RESOURCES OF THE CNMI

24. 8. 1. Rock and Aggregates

The islands of the CNMI are composed of limestone rock, volcanic rock, sands, and surface soils. These rock deposits can be mined in quarries.

They are used as building materials for our roads and houses. Sand is used in the making of concrete. These resources are limited in supply and their extraction can cause damage to the landscape.

24. 8. 2. Island Minerals

Several kinds of minerals exist in the Commonwealth. There are deposits of oxides of iron, manganese, bauxite, and ocher. These metals are used as inputs to the manufacture of various metal and metal alloy products.

Phosphates and clay are also considered to be minerals and occur in some areas. Some phosphate rock, which is used to make fertilizer, has been found on each of our southernmost islands. Phosphate is derived from the droppings of seabirds (guano). Phosphate was once commercially mined on Rota.

Volcanic ash can be used in the making of cement. The active volcano on Pagan is currently creating a supply of ash that may be commercially exploited in the future.

24. 8. 3. Seabed Minerals

Undersea volcanic activity produces deposits of metals on the sea floor. These deposits usually occur around volcanic vents, seamounts, or breaks in the undersea crust of the earth. Over long periods of time, other metals may precipitate out of seawater and settle on the sea floor.

It is likely that some metal deposits occur on the sea floor surrounding the Northern Mariana Islands. These deposits could include iron, manganese, magnesium, molybdenum, cobalt, nickel, copper, platinum, zinc, lead, silver, and even gold.

Just how much of each of these metals exists, and where they might be located, is as yet unknown. To locate them would require sophisticated seismic testing as well as deep diving equipment.

Even if deposits are found, it may be very costly to extract them. As other sources of these metals begin to be depleted, however, it may become cost effective to find and extract these metals from the waters around our Marianas archipelago.

The ocean surrounding our islands has potential resources hidden beneath, but exploitation remains economically unfeasible.

24. 8. 4. Oil and Gas

There is some potential for the existence of oil and gas in the deep oceanic sediments around the Northern Marianas. Decaying marine life deposited on the ocean bottom over millions of years might provide significant oil and gas pockets deep in the sediment layers.

Unfortunately, the presence of these resources is not really known for sure. It would take significant effort and advanced technology to search the sea floor for oil and gas. It is not now economically feasible to verify whether these resources actually exist or not.

24. 9. PHYSICAL FEATURES

24. 9. 1. Our Constant Tropical Climate

One physical feature of great benefit to the CNMI is our climate. Being in a tropical area with an average temperature of about 86 degrees Fahrenheit year-round makes our islands a great destination for tourists. Tourists from Japan, Korea, China, and other countries come here, especially during the winter months. They enjoy our warmer temperatures.

Our waters stay warm nearly all year, which makes water sports a popular activity. Without this benefit of a constant climate, our tourism industry would be much more seasonal and probably less valuable.

The Saipan Lagoon is an extremely valuable physical resource.

Also, we would not be able to catch fish all year, nor would crops grow throughout the year. So, we benefit in many ways from our location and tropical climate.

24. 9. 2. Saipan Lagoon and Mañagaha Island

The Saipan Lagoon is an extremely valuable physical resource. The lagoon itself is created by sections of two barrier reefs.

The first extends from Agingan Point in the south, to just off of Muchot Point at the beginning of Tanapag harbor. The northern reef, from Wing Beach to just past Mañagaha Island, forms the second barrier.

The total area of the lagoon is nearly 20 square miles. It is mostly shallow water, but can reach depths of 40 feet or more in the dredged harbor area.

The lagoon and Mañagaha Island support a variety of recreational activities, such as fishing, boating, snorkeling, SCUBA and SNUBA diving, banana boating, jetskiing, parasailing, sunbathing, and even submarine tours and sunset cruises.

The reefs also protect the coastline of Saipan from rapid erosion. Thus, the lagoon and Mañagaha are very important resources for both indigenous residents and tourists alike.

24. 9. 3. Our Harbors

The Saipan Harbor
The barrier reef that creates Saipan Lagoon also provides for a safe, deep water harbor. This harbor is very important to the economy of the CNMI. Although it seems like a natural harbor, it was opened by blasting during Japanese times. More recently it has been mechanically dredged.

A shipping port has been built for handling fuel and containerized cargo. Most of the products we buy in our stores arrive in containers originally landed at the seaport of Saipan.

Without this seaport, importing the raw materials used in manufacturing would be very difficult. The export shipping of manufactured goods would be difficult as well. Thus, the harbor at Saipan is a very important resource to our island economy.

The Tinian Harbor
The island of Tinian also has a well-developed port facility. The U.S. military constructed a breakwater and pier facility to support the World War II operations on Tinian. A deep water channel was blasted and mechanically dredged, significantly widening and deepening one developed earlier during Japanese times.

This port allows barge transfer of consumer products, such as groceries, often transshipped from the ports of Saipan, Rota, and Guam. Larger, ocean-going vessels can also call directly at Tinian Harbor.

The port has been used in the past to cold store and transfer commercially-caught tuna. Even today, the fish are sometimes transferred from catcher boats to large refrigerated ships bound for canneries around the world.

The port in Tinian will continue to be an important facility as the economy of Tinian grows. Now 50 years old, the port facilities need maintenance and renovation work. This is currently being planned.

Rota's Two Harbors
The island of Rota lacks the large commercial deepwater harbor and seaport facilities that Saipan and Tinian enjoy. However, two small, fair weather ports have been constructed.

These facilities provide for containerized shipping of consumer goods, including groceries and construction materials. Even though these ports are small, they are crucial parts of the potential to develop tourism and other industries on Rota.

Pagan's Jetty
Pagan had a small port with a jetty prior to the 1981 eruption. The ashfall, typhoons, and lack of maintenance have made it unusable.

Seaport facilities are so important that the lack of seaports on our northernmost islands makes it difficult to develop their economies.

24. 9. 4. Our Airports and Small Airfields

As was previously mentioned, long, flat land surfaces are natural landscape features that can be used as runways and taxifields. There must also be clear approaches at either end.

Saipan, Tinian, and Rota all have sufficient areas for major airports. Other nearby inhabited land areas, including Okinawa, Chuuk, Pohnpei, and Kusaie, have had to sacrifice large tracts of their lagoon and reef areas to allow for the dredging and construction of their airports.

Many of the Pacific island airports were originally built as World War II strategic facilities by the opposing Japanese and American military forces. Now they service our passenger and commercial air cargo needs.

Air transportation plays a huge role in the economy of the CNMI. Without it we would not have a tourism industry. Without air transportation, we would be isolated from continental mainlands and from other islands as well. We would be forced to rely on much slower sea transportation.

Small, unmaintained airfields exist on two of our northernmost islands (Pagan and Agrihan), and one is on Aguiguan (Goat Island) as well.

To date, Saipan has the only airport in the Commonwealth capable of handling large wide-bodied aircraft such as the Boeing 747 and the DC-10. However, Tinian's airport may soon need expansion to accommodate the growing tourism industry there, as might Rota's airport. Luckily, there are ample spaces on both islands for future airport expansion. [Ed. update: Tinian's airport was recently expanded to include a new runway capable of handling larger planes.]

Small, unmaintained airfields exist on two of our northernmost islands (Pagan and Agrihan), and one is on Aguiguan (Goat Island) as well. However, there are very few services, such as fuel, available.

In 1981, Pagan's small airfield was made even smaller by a huge basalt lava flow which cut across it. Feral cows, goats, and pigs often graze on the old runway's overgrowth of grasses. Pilots flying small planes there need to avoid these *on-runway* populations and then halt their aircrafts before slamming into the huge basalt wall. Needless to say, flying to Pagan is quite an adventure.

Read more about our airports and seaposrts in Chapter 33, "Our Public Infrastructure".