

1. Natural Resources

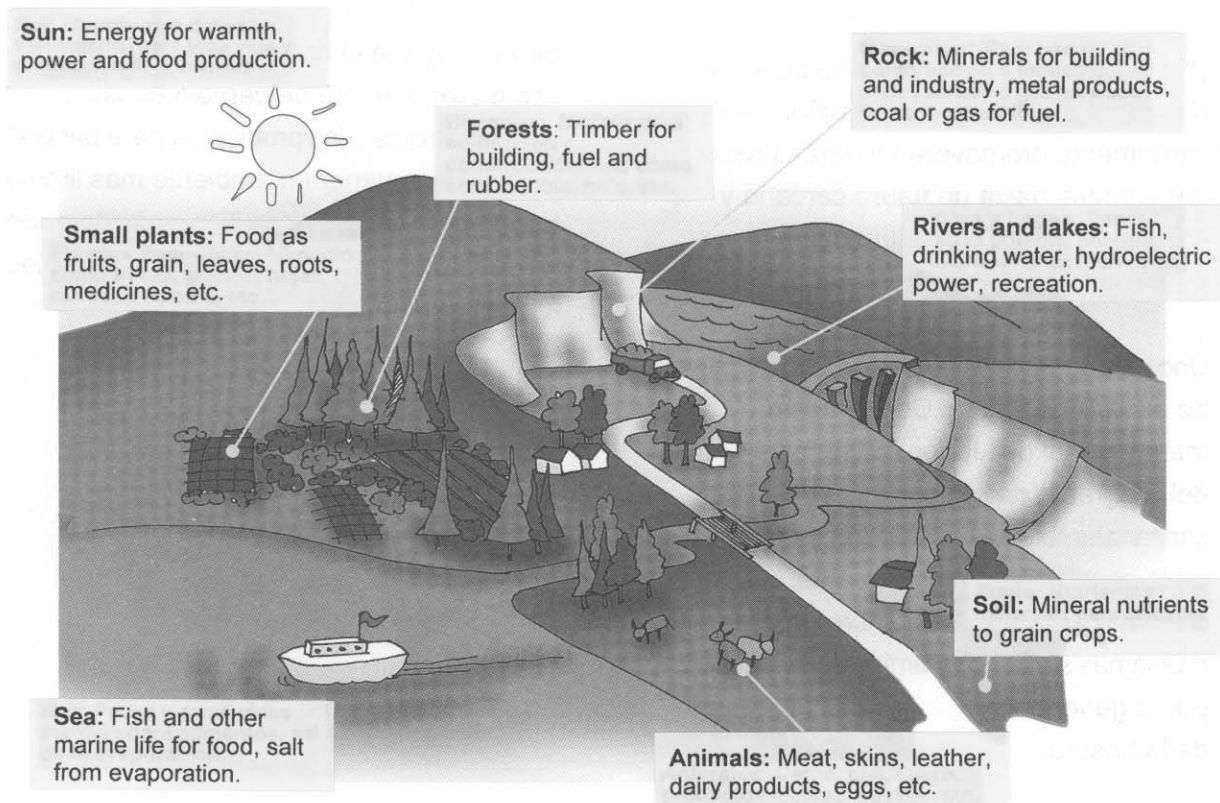
Natural resources are naturally occurring elements that form our earth. These include air, water, soil, rocks, forests, plants and animals, e.g. all biotic and non-biotic elements. All resources are interconnected, so a deficiency in one element puts pressure on all the others. They meet basic needs for air, water, food and shelter.

The environment is fragile. If just one of these four basic needs is not met, humans, animals and plants suffer. As earth's population increases, demand of these resources grows and thus their quantity diminishes.

Some resources are renewable (e.g. resources that can be replaced naturally, derived from an endless source) like the sun, but many others, such as petroleum upon which we rely heavily for energy, are non-renewable or finite (e.g. resources that occur in a finite amount). Once a finite resource is consumed, there will be no more supply.

With resource use comes waste. Excess food, packaging, products and unwanted materials end up as waste in our landfills or in inappropriate areas such as "quebradas", ravines and rivers.

In order to sustain our quality of life, we must conserve our resources through waste reduction, reuse and recycling. These methods of waste management will contribute to the **protection and conservation of natural resources**.



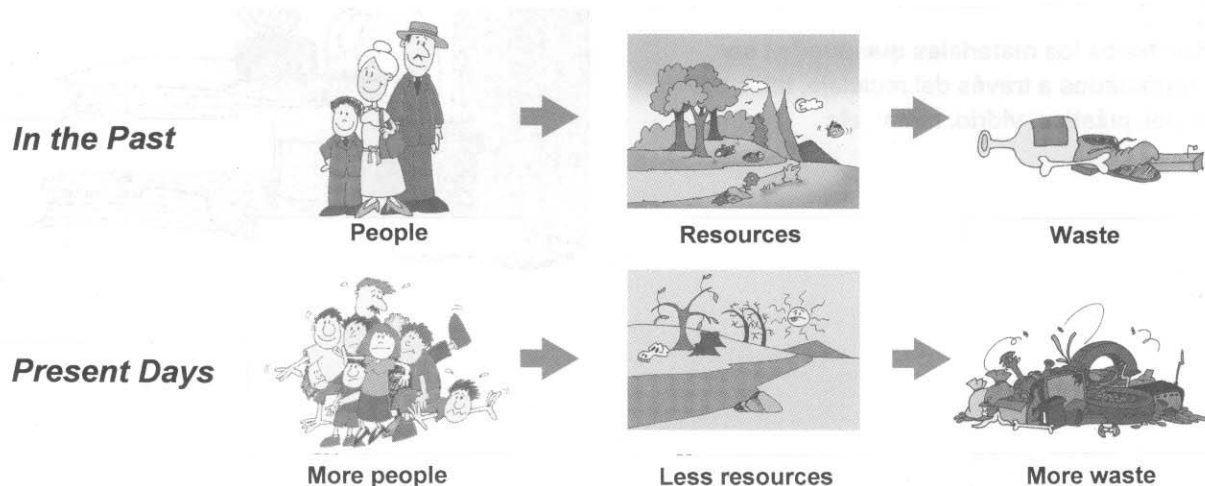
Our Country, Our Resources 2.

The country's population is growing at a very fast rate. As we grow in terms of people, so does our demand of resources. Factors contributing to this demand increase include land development, consumer habits and changes in the standard of living, technological development and industrial activities.

Mankind has always used resources and consequently created waste. What makes modern societies different from past generations is the way in which we use our resources. In the past, communities had to be self-sufficient, producing their own food, shelter, transport and entertainment. Resources were conserved and used only when needed.

Today the majority of our populations live in industrialized communities. Our basic needs of food, shelter, transport and entertainment come from a variety of places. Our resources needs are complex, and therefore our damage to the environment is greater.

Because of these problems, the society should change the way it treats waste, since natural resources, economic and human resources and municipal landfill spaces are insufficient.



Quiz Corner: Natural Resources

1. What is a natural resource?
2. Name three natural resources:
 - 1)
 - 2)
 - 3)
3. What is a renewable resource?
4. Name two renewable resources:
 - 1)
 - 2)
5. What is a non-renewable resource?
6. Name two non-renewable resources:
 - 1)
 - 2)
7. Give a natural resource and create a number of products out of it.

Note: If you have not been able to answer these questions, reread and try to understand the contents of pages 1 and 2.

1. A valuable naturally occurring material
2. Possible answers could include air, soil and water.
3. A resource that can be replaced naturally, derived from an endless source.
4. Plant, wildlife
5. A resource that occurs in a finite amount.
6. Possible answers include fossils and minerals.
7. Example – Timber: paper, cardboard, furniture, etc.

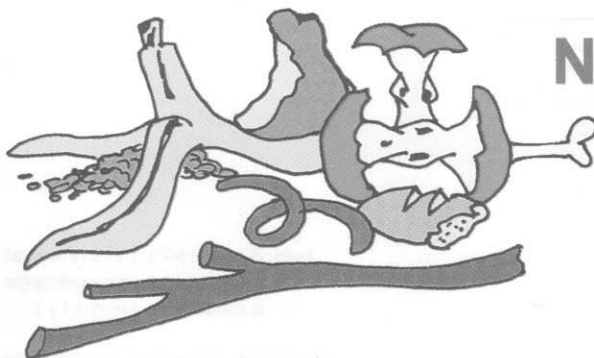
3. What is Waste?

Waste (also known as solid waste or refuse) is any solid material that is discarded, unwanted or "thrown away". Humans have always produced some sort of waste:

Waste can be divided into two big groups:

Recyclable waste

All materials that can be recovered through recycling, such as paper, plastic, glass, metal, etc.



Non-recyclable waste

All materials which cannot be recovered by means of recycling, such as items that are easily decomposed and other inert materials.

Biodegradable waste (food waste, fruit peels, leaves, etc.) can be considered as recyclable if it is processed as compost



Generation of Waste in San Salvador Metropolitan Area

4.

Waste is generated from households, commercial and institutional activities, markets and street sweeping. Every resident of the Metropolitan Area produces approximately 420~600 grams/day of household waste.



Daily waste amount generated
in the metropolitan area

Approx. 1,200 tons/day

(1 ton = 1,000 kg)

**Waste amount generated annually
in the Metropolitan Area:**

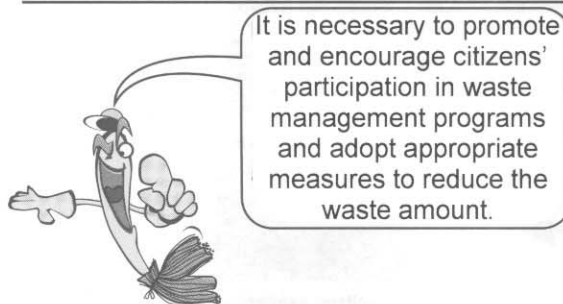
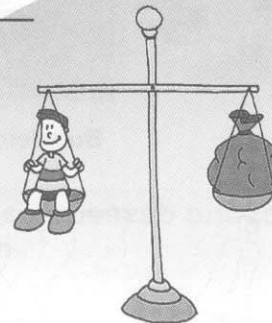
439,630 tons/year



If this amount of waste was placed in the soccer ground (90m x 60m), it would create a pile of about **200 meters** high!

The amounts of household waste generated per person are:

- 420~600 g/capita/day
- 153,300~219,000 g/capita/year or 153.3~219 kg/capita/year



We should find a way to reduce the amount of waste generated in order to conserve our resources.



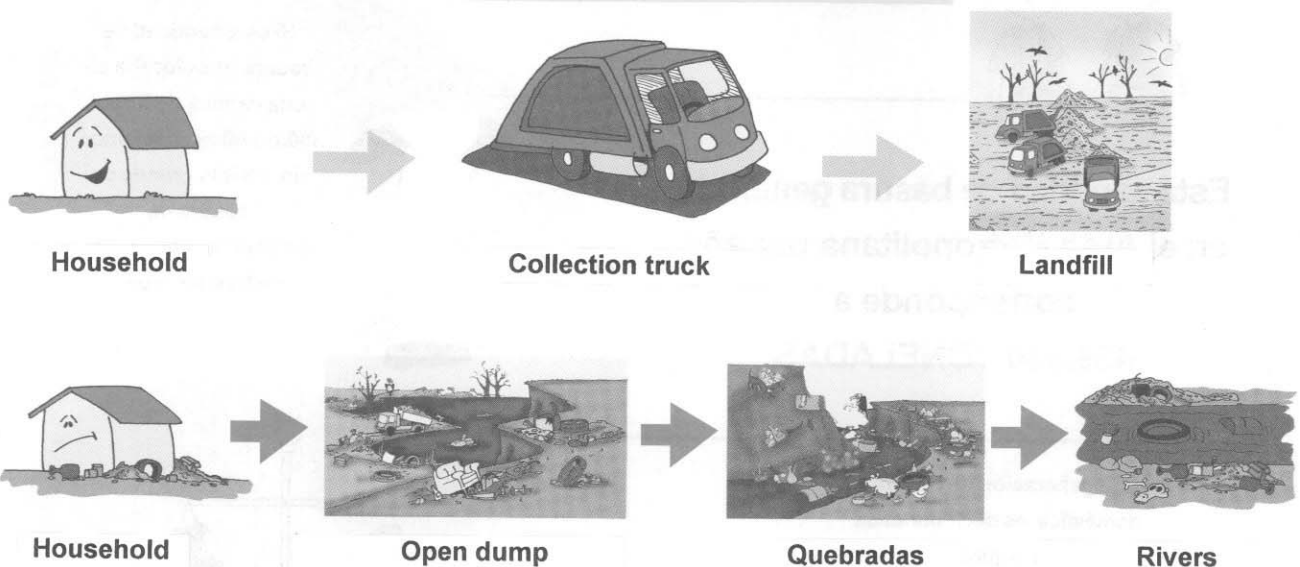
5. Where Does Our Waste Go?

What happens to waste, empty cans and bottles? And where do used newspapers go?

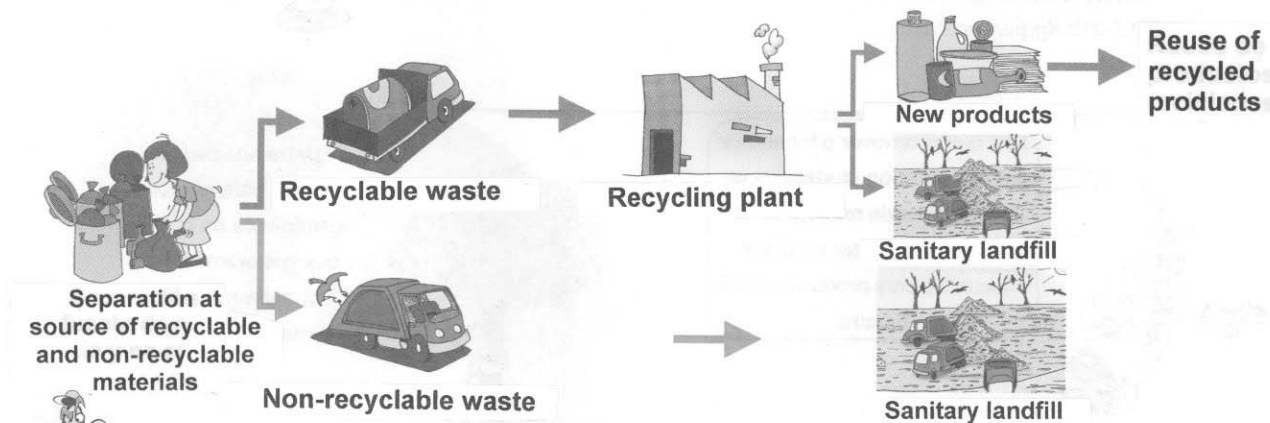
For many years, most have ended up in landfills and other areas, which are inadequate, such as "quebradas" and ravines. Now, many of these places are almost full.

In some countries, the waste is burned in incinerators, and energy is recovered through burning. Incinerators reduce the volume of waste but produce smoke and fumes; moreover, landfills are still needed to bury the ashes created by incineration. Both incinerators and landfills are expensive, and it can take a long time to locate adequate sites and build the facilities.

Present household waste destination



Desired destination for recyclable materials which are found mixed with household waste

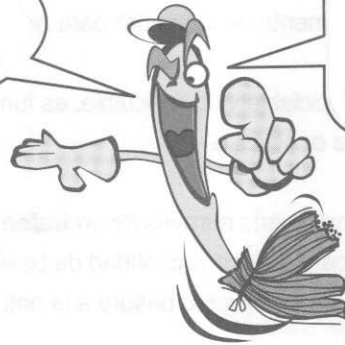


7. Recycling

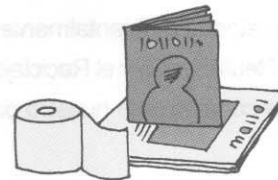
Recycling is the process of recovering used materials for other uses. Recycling is an easy and effective method to reduce waste.

Do you know how the materials that you have recycled can be recovered?

Recycled materials can return to you in the form of the following new products.



Milk cartons, newspapers, magazines



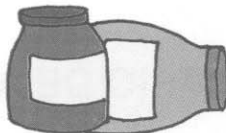
Newspapers, magazines, notebooks, tissue paper, toilet paper, etc.



Glass



New glass



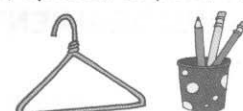
Plastic "pet" bottles



Recipients for detergent, T-shirts, gloves, aprons, carpets, toys, etc.



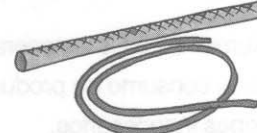
Polystyrene trays



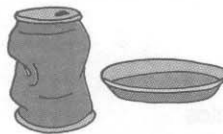
Hangers, school articles



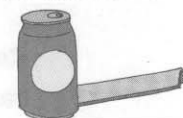
Steel cans



Building materials such as steel structures and reinforcing bars.



Aluminum cans



New cans, aluminum sashes, etc.

