

Assignment-2

Topic 2: Natural Resources and Associated Problems

Practical 2: Case Study

Object – Paper/Note Book

A book can be broadly defined as a written document of at least 49 text pages that communicates thoughts, ideas, or information. Throughout the ages, books have changed dramatically, assuming a number of different forms. To a great extent, the evolution of the book has followed the expansion of communication forms and methods and the ever-increasing demand for information.

Book Manufacturing Resources & Raw Materials -

wood fiber from sawmills, recycled newspaper, some vegetable matter, and recycled cloth. Coniferous trees, such as spruce and fir, cellulose fibers, "softwood", Deciduous trees (leafy trees such as poplar and elm) are called "hardwood."

bamboo has been used for paper pulp, as has straw and sugarcane. Flax,

Most paper is made by a mechanical or chemical process.

hemp, and jute fibers are commonly used for textiles and **rope** making, but they can also be used for paper. Some high-grade **cigarette** paper is made from flax.

Cotton and linen rags are used in fine-grade papers such as **letterhead** and resume paper, and for bank notes and security certificates. The rags are usually cuttings and waste from **textile** and garment mills. The rags must be cut and cleaned, boiled, and beaten before they can be used by the paper mill.

Other materials used in paper manufacture include **bleaches and dyes, fillers such as chalk, clay, or titanium oxide, and sizings such as rosin, gum, and starch.**

Classification of Resources

Renewable Resources	Non-Renewable Resources
Wood and tree related material wood fiber from sawmills, recycled newspaper, some vegetable matter, and recycled cloth. Coniferous trees, such as spruce and fir, cellulose fibers, <u>bamboo</u> , hemp, and <u>jute</u> fibers, Cotton and linen rags,	Chemicals and solid waste bleaches and dyes, fillers such as chalk, clay, or <u>titanium</u> oxide, and sizing's such as rosin, gum, and <u>starch</u> .

Ways to reduce your waste

1. Recycling

- reuse your plastic bags and containers
- buy items in bulk and avoid packaging you don't need
- sell, exchange, or donate unwanted furniture and goods

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- avoid disposables - take your own reusable cup or drink bottle
- buy items loose and use refills.

2. *Product stewardship*

Responsible manufacturers may take items back once you have finished with them.

Donate your unwanted goods

These websites will help you with donating your goods:

[Freeecycle](#) - an online network for giving away used items. A grassroots, non-profit movement of people who are giving (and getting) stuff for free.

[DonateNZ](#) - helps you donate to charities and community groups.

[AskShareGive](#) - an online community where people share their time, skills, transport and old or unused goods.

For other ways to give away unwanted goods, visit:

- [Waste education programmes and resources](#) - for resource centres that accept unwanted goods.
- [Transfer stations](#) - for donating second hand goods to the Waitakere Refuse and Recycling Centre.
- [Recycler Directory website](#) - for recycling goods that are not accepted in your kerbside collection.

3. **Food and garden waste**

Food and garden waste currently make up around 50 per cent of an average household rubbish, yet it could be put to a range of domestic and commercial uses.

4. *Reduce your food waste*

It is estimated that we throw away one-third of all fruit and vegetables we buy. We can all take simple steps to reduce this waste.

Start by buying only as much fresh produce as you need.

If you are a business, donate your leftover food to a charity or food redistribution network.

5. *Composting courses*

Composting is nature's way of recycling and helps to reduce the amount of waste we put out for rubbish collection.

Find out more about composting on the [Create your own Eden website](#).

6. *What else can you do?*

- Mulch your lawn clippings and woody waste.
- Sign up to a green waste collection company. Garden waste will not be collected in the regular rubbish collection.
- Recycle your grass clippings by leaving them on the lawn after mowing, to return vital nutrients to the soil. This retains moisture, reduces the number of times you mow and the time it takes to mow. Only cut the top third of the grass each time and consider replanting sections of your lawn with slow growing native ground covers.
 - repair or donate
 - find out if there is a take back scheme on the manufacturer's website
 - ask when you next purchase a TV if the brand provides end-of-life recycling as part of the purchase package.

7. **Electronic waste**

Electronic waste, or e-waste, refers to anything with a battery or a plug. Valuable and sometimes rare materials can be recovered from e-waste or recycled into new products.

Don't put e-waste in your inorganic collection as it will go straight to landfill. If possible, try to: upgrade

List of energy source utilized in everyday life

1. Petroleum Power
2. Food Calories
3. King Coal
4. Renewable Energy Resources
5. All Charged Up
Computers, calculators, remote controllers for video games, wireless computer mouses and wristwatches

Saving Energy sources everyday

1. More Environmentally Friendly Travel

The simplest solution to reduce energy consumption in the transport sector is to **reduce car trips as much as possible**.

5 tips to reduce your car's fuel consumption:

- Combine journeys and use the shortest itineraries
- Don't overload the car
- Switch off the engine if you stop for longer than 20 seconds
- Drive slowly and carefully and avoid sudden braking
- Check your tire pressure regularly

2. Thinking green at home

Heating accounts for **65% of energy consumption in the home**. There are a number of simple ways to reduce your electricity spend on heating:

To avoid overusing air-conditioning and still stay cool, keep these simple tips in mind:

- Shutters should be closed and blinds and curtains drawn during hot summer days;
- Air your house after dark.

Apart from lighting, there are other things you can do to reduce energy costs:

- Don't leave televisions, stereo systems and computers on standby – by switching them off you can save **up to 10% in electricity costs!**
- In the kitchen, use a lid when cooking. Boiling water in a covered pan or kettle requires **4 times less energy** than boiling it in an uncovered pan. If you put your freezer in an unheated room and wait until food is cold before refrigerating, these appliances will use less energy to keep food at the right temperature.
- Set your household appliances to lower power settings. **Washing the laundry at 40°C** requires 25% less electricity than washing it at 60°C. If you choose the **economy program** on your dishwasher, you will use **45% less electricity per cycle**. Not using your tumble-dryer will save you 15% on your overall annual electricity consumption.