

# Resource Sheet: **ENVIRONMENTAL SUSTAINABILITY FACTORS**

For YES 2012 Entrants

Being a sustainable business allows you to look after your profit at the same time as looking after our environment. There's money to be saved in being green!

Pure Advantage ([www.pureadvantage.org](http://www.pureadvantage.org)) has been established by a group of New Zealand business leaders united by a shared vision of green growth for greater wealth. The name reflects New Zealand's pure, clean, green competitive advantage on the world stage. Pure Advantage is determined to deliver significant measurable improvements to both our economy and environment by producing world-class research, engaging with politicians, launching a public awareness campaign, stimulating green business and establishing a group of corporate champions for specific green growth initiatives.

The following are a set of factors and questions your company can consider in order to increase its sustainability.

For case studies examples of sustainable businesses visit [www.pureadvantage.org/case-studies](http://www.pureadvantage.org/case-studies)

This resource sheet was created by the Pure Advantage Youth Ambassadors; a group of young New Zealanders who believe it is important to spread the advantages of sustainable business practice to other young Kiwis like you!

## **The Product**

### **Materials**

- ▶ What is your product made of?
- ▶ Where do these materials originate from?
- ▶ Are the raw materials a renewable resource?
  - Renewable resources are resources capable of being replenished within a short time through ecological cycles (as opposed to resources such as minerals, metals, oil, gas coal that do not renew in short time periods).
- ▶ What is the environmental impact of the materials your product uses?
- ▶ Are there alternatives to harmful materials used which have less of an environmental impact? Can you use recycled materials instead?
- ▶ Use the following equation to calculate the percentage of recyclable materials used in your product:

$$\text{Percentage of recyclable materials} = \frac{\text{Total recycled inputs materials used}}{\text{Total input materials used}} \times 100$$

## Products and services

- ▶ Does your company offer an offsets scheme to help reduce environmental damage?  
A few ideas are listed below:
  - Having a dollar offset scheme, where the amount of environmental damage your product or service creates is offset by donating money to an environmental cause e.g. Sustainable Coastlines. This could be included in the price of each unit, or an option that the customer could choose.
  - Reclaiming your product or packaging at the end of its life and re-using it, or sending it off to be recycled. This is especially effective if you set up a customer incentive scheme that encourages them to hand back the product/packaging.
  - e.g. M.A.C cosmetics have an offer where if you return 6 packaging items you get a free lipstick.

## X-Factor

- ▶ What does your product contribute towards environmental sustainability?
  - e.g. Potato Pak make disposable plates out of waste potato starch which biodegrade (or can be eaten by pets!) after use. See case studies online: [www.pureadvantage.org/case-studies](http://www.pureadvantage.org/case-studies)
- ▶ Does your product encourage people to be green?
  - e.g. A solar powered phone charger

## Manufacture

### Materials

- ▶ Does your product have "associated materials"?
  - These are materials needed for the manufacturing process but are not part of the final product, such as lubricants for manufacturing machinery.
- ▶ What is the environmental impact of these associated materials?
- ▶ Are they reused or recycled?
- ▶ Are they renewable resources?
- ▶ Can the manufacturing process be changed to use less associated materials, or materials that are less harmful for the environment?

### Energy

- ▶ Where is energy used in the manufacturing of your product, and how much?
- ▶ What energy types are used in the manufacturing of your product?
- ▶ Can less harmful energy alternatives be used? Can the process be changed to use less energy?

The following is a table of common renewable and non-renewable energy sources.

Renewable	Non-Renewable
- Wind	- Fuel distilled from crude oil
- Geothermal	- Natural Gas
- Hydro energy	- Diesel energy
- Solar	- Coal Power

## **Water**

- ▶ How much water is being used in the manufacturing of your product?
- ▶ Where does the water originate from?
- ▶ What is the final state of the water?
  - Is it able to be reused? For the same or a different purpose?
- ▶ How is the final water disposed of? Waste water runoff into rivers causes a disturbance of the local ecosystem and pollution.

## **Emissions, Effluent and Waste**

- ▶ Your manufacturing process will produce greenhouse gas. Investigate:
  - Which stages of manufacturing produce the most greenhouse gases?
  - Are there alternatives to these stages which produce less greenhouse gasses?
- ▶ Your manufacturing process may produce waste. Investigate:
  - Which stages of manufacturing produce waste?
  - How is the waste disposed of?
- ▶ Positive waste disposal methods include reuse, recycled and composted.
  - Can changes be made to the manufacturing process to reduce waste produced or increase positive waste disposal methods?

## **Ethics**

- ▶ Does your manufacturing process degrade, disadvantage or violate humans in any way? Is it fair to all people involved?
- ▶ Consider all stages of manufacturing and all materials including associated materials:
  - Farming and harvesting of raw materials
  - Transportation of raw materials, processed materials and product
  - Processing and production of raw materials and product
  - Packaging at all stages of production

## **Packaging**

Try to make a packaging free product!

### **Materials**

- ▶ Go through the "Materials" questions under "The Product" considering the packaging instead of the product.
- ▶ Can your packaging be recycled or reused?
  - An incentive scheme will encourage customers to bring back packaging for reuse or purpose recycling. An example of an incentives scheme is given in the "The Product" section under "Products and services".
- ▶ If your packaging cannot be recycled or reused, can it be biodegradable?
  - Make sure your customers are aware the packaging is biodegradable and know what to do so that it will degrade. This can be as simple as having instructions on the packaging itself!

### **Bulk Packaging**

- ▶ Your products are most likely packed in bulk for transport. e.g. in boxes, using bubble wrap, polystyrene or shrink wrapped. Investigate:
  - The bulk packaging used at all stages of manufacturing, including:
    - ▶ Raw materials
    - ▶ Processed materials
    - ▶ Finished product to you
    - ▶ Product to stockists
  - The environmental impact of the packaging used
  - The possibilities for alternatives which can be reused, recycled, or that are less harmful
  - What is done with the bulk packaging once it has been used? Is it recycled or just thrown away?

### **Emissions, Effluent and Waste**

- ▶ Go through the “Materials” questions under “The Product” considering the packaging instead of the product.

## **Transport and Supply Chain**

There are several areas of transport to consider:

- ▶ Raw materials to processing plant
- ▶ The next few stages of processing (there could be several stages of transport here).
- ▶ The final stage of processing to you or stockists
- ▶ From you or your stockists to customer
- ▶ Transport of waste from manufacturing and packaging

### **Investigate:**

- ▶ The method of transport used at each stage. Can this be changed to decrease environmental impact? Can a cleaner fuel be used?
- ▶ The distance transported at each stage. Can this be decreased (by choosing manufacturers and suppliers in a close area)?

### **Emissions, Effluents and Waste**

- ▶ Is waste transported anywhere?
- ▶ Consider the greenhouse gases produced at each stage of transport. Can they be reduced? Remember that easy actions such as choosing a manufacturer and raw material suppliers closer to you or your retailers reduces transport emissions.

### **Stockists and Merchandising**

If you have a third party selling your product, investigate their sustainability efforts:

- ▶ What will the stockist do with your bulk packaging?
- ▶ Will the stockist collect used products and packaging that customers have returned and recycle them (or pass this back to you to recycle them)?