

## **Our clothes and the environment**

People who can afford tend to shop for clothes despite overflowing closets. They want change, even if their clothes are perfectly good to be worn for years to come. This consumer behaviour affects the environment and people making the clothes. This is where clothes swapping day comes in handy.

Growing cotton, manufacturing of fabrics and transporting the clothes requires water, energy and chemicals. Large amounts of chemicals are used to manufacture clothing and textiles. These chemicals are not uncommonly toxic to aquatic environments. They can also be mutagens (change the genetic material of an organism), cancerous, toxic to reproduction, endocrine disruptors and allergenic. Another hidden effect is that the people who work in clothes manufacturing sometimes have poor working conditions with little or no protection against these very chemicals.

A pair of jeans, from the cotton field to the store, requires approximately 10,000 litres of water and about 1.9 kilograms of chemicals. A cotton t-shirt require roughly 4,100 litres of water and 0.6 kilograms of chemicals. Residues of chemical contaminants can remain in clothes and textiles as they leave the store.

### **A few examples of chemicals used in the manufacture of some clothing include:**

Alkylphenols (for cleaning and dyeing) are toxic to aquatic life, persist in the environment and can accumulate in body tissue and bio-magnify (increase in concentration through the food chain). Their similarity to natural oestrogen hormones can disrupt sexual development in some organisms, most notably causing the feminisation of fish.

Phthalates (used to soften PVC) are sometimes used in artificial leather, rubber and PVC and in some dyes. There are substantial concerns about the toxicity of phthalates, some of which are repro-toxic in mammals.

Brominated and chlorinated flame retardants are persistent and bio-accumulative chemicals that are used to fireproof a wide variety of materials, including textiles. Some are capable of interfering with the hormone systems involved in growth and sexual development.

Azo dyes are one of the main types of dye used by the textile industry. Some azo dyes break down during use and release chemicals known as aromatic amines, some of which can cause cancer.

Perfluorinated chemicals (PFCs) are manmade chemicals used to make textile and leather products both water and stain-proof.

### **But we need clothes, so what should we do?**

When purchasing new clothes, it is important to look for clothes with environmental certification, for example the Global Organic Textile Standard label. Second-hand, re-using and trading clothes means less consumption and reduced impact on the environment compared to buying new products. It also saves you money.

Try to buy fewer items of clothing, consider what you really need rather than what would be fun to have, and use them for longer periods. Remember that clothes with a tear can be fixed and do not

have to be thrown out. You can also easily redesign clothes you tire of to make them new and interesting. Donate clothes instead of throwing them out.

Also try to wash clothes less frequently, at lower temperatures and with sustainable detergents. Hang them to dry rather than using a dryer. Avoid ironing.

While many people around the world buy new clothes quite unnecessarily, many others are getting tired of wear-and-throw-away trend. Second hand it is environmentally smart and fun. Clothes swapping day makes it even better. It is a fun, social, and completely free activity that provides tangible environmental benefits. The garments that you are tired of, or who no longer fit you, are new and exciting for others. The life of the clothes will be extended and we contribute to a better environment.

By reusing 1 kilogram of clothes\* instead of buying new, you save approximately:

- 15 kilograms of carbon dioxide (CO<sub>2</sub>) equivalents
- Between 10,000 and 15,000 litres of water
- 2.7 kilograms of chemicals

\*example based on a pair of jeans, a top and a thin jacket

In Sweden clothes swapping day has been arranged annually by the Swedish Society for Nature Conservation since 2010. Here are some figures from their 2015 events throughout Sweden:

- 109 clothes swapping events in Sweden (additional events in Denmark, Norway and Finland)
- 12,300 people changed clothes
- 44,500 pieces of clothing changed hands
- Provided the traded clothes replaced the buying of new ones, the environmental saving represented 29 tons of chemicals, 165 tonnes of carbon dioxide and 110,000 cubic metres of water