**The value of the rainforest**

The resources and opportunities offered by the tropical rainforest itself are widely known as goods and services. Goods are things that can be directly obtained from the rainforest whereas services are benefits that the rainforest can offer to both people and the environment. demonstrates these.

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| Goods | Services |
| Native food crops (fruit & nuts)  Wild meat and fish  Building materials (timber)  Energy from HEP  Water  Medicines | Air purification (absorbing CO₂)  Water and nutrient cycling  Protection against soil erosion  Wildlife habitats  Biodiversity  Employment opportunities |

Figure 1 Goods and Services in the Tropical Rainforest

The plants of the tropical rainforest include many of the things that we eat, such as cocoa, sugar and bananas. Cinnamon, vanilla and many other spices also come from the rainforest. Useful products like rubber, ropes and baskets are made from rainforest plants. Some of the chemicals from rainforest leaves, flowers and seeds are used to make perfumes, soaps, polishes and chewing gum. Traditional subsistence farming is still very much about the harvesting of rainforest goods. The use of these forest products has been going on for a very long time.

However, we are beginning to realise that the rainforest has more to offer. It is the stock of plants that pharmaceutical companies are finding to contain ingredients to help treat and cure diseases. Indigenous tribes have a very long tradition of using parts (barks, resins, roots and leaves) of various plants for this purpose. Currently, over 120 prescription drugs sold worldwide come from plant sources. About a quarter of drugs used in the developed world are derived from rainforest ingredients. Less than 1% of rainforest tropical trees and plants have been tested by scientists to find out if they have any medical value. 25% of the active ingredients in today’s cancer-fighting drugs come from the organisms found only in the rainforest (**Figure 2)**. In 1980, there were no pharmaceutical companies researching possible new drugs and cures from plants. Today, there are well over 100. It is in the interest of global healthcare to protect the tropical rainforest and its medicinal plants. It is vital that these plants are not over exploited.



Figure 2 Vincristine: an anti-cancer drug made from Periwinkle; a rainforest plant

Some of the services listed in **Figure 2** such as water and nutrient recycling and protection against soil erosion are services that benefit the environment and assist in maintaining the general health of the rainforest. On the other hand, the rainforest biodiversity and wildlife habitats are benefits that people can enjoy, either as native settlers or as tourists. However, it perhaps the rainforests air purification that service that is of most value to both people and the environment, locally and globally.

Perhaps the single most important global issue today is climate change. Climate change will only be checked by:

* Greatly reducing the burning of fossil fuels and so lowering CO₂ emissions.
* Greatly reducing the rate of deforestation to ensure that as much of the Earth as possible is covered by trees to absorb CO₂ from the atmosphere.

As one of the largest carbon sinks in the world, the tropical rainforest has a critical role to play. Protecting the remaining rainforest requires doing two things:

* Ensuring that much of it is left untouched, so that it remains in a pristine state, for example, making large areas of rainforest into nature reserves and national parks.
* Allowing the goods and services of the tropical rainforest to be used to benefit people and the environment, but only in a sustainable way.