



PERMACULTURE COURSE 1 of 2020

Principle 4: Apply self regulation and accept feedback

The first priority is to survive (obtain a yield from captured energy), while the second is to pay for what we get in some way that helps maintain the future flow of energy. The third, is to contribute in some other way and direction, to the wider system, rather than seeing our own survival as an end in itself.

The modern economy, despite its complexity, fails to provide critically important feedback signals to ensure appropriate behaviour to decide important questions. For instance:

- How much is enough to consume? (When should the rabbit stop eating? How big a house do we really need?)
- How much work is enough? (How many vegetables is it sensible for one gardener to produce? How many hours do we really need to work?)
- How should we pay and how do we measure it? (What should the real price be? Do markets fail to provide correct information about values?)
- What should we contribute to the greater good? (Is paying tax, working for community groups etc., useful or sufficient? If not, what else should we do?)

One-third of our time to providing for our material needs, one-third to self-development and reflection, and one-third to wider societal benefit.

In dealing with our personal addictions or designing solutions for more complex large-scale ones, the lessons from dealing with drug addiction are useful:

- Acknowledge our own addictive behaviours and admit that they are barriers to a better life and a more sustainable world
- Recognise the emotion and other benefit or yields we get from the addiction
- Avoid guilt and blame of others, including our parents
- Disconnect from reinforcing relationships with addicts who are unwilling to acknowledge or deal with the particular addiction
- Connect with ex-addicts who understand, and form self-help groups of addicts willing to change.

Principle 5: Use and value renewable resources and services

Even if we understand very little about forests and forestry, we can go into the forest with the question "What does the forest have to give?" If we use observation skills, including the decision-making loop (see Principle 1 - Failure is useful so long as we learn) it will become evident in most forests that small stunted individuals of the dominant canopy species are

abundant and can be removed without much risk of adverse effects.

The skill needed to fell such trees is not great and the effort needed to process them for use not onerous. If we make the best use of all the trees that we fell, we can think about the results and proceed in small incremental steps. The yields from thinning might only be firewood and mulch but could include posts or craft-wood if the type of tree is suitable. In the process of obtaining a yield, we improve the capacity of the forest to catch and store energy in larger, more valuable trees.

Pioneer plants that build soil fertility, with or without the help of soil microbes, are a feature of almost all permaculture inspired gardens and farms. Legumes that support nitrogen-fixing microbes are the most common example. Symbiotic mycorrhizal fungi and similar organisms, which mine phosphate tied up in insoluble form in the soil,

Deep-rooted pasture plants such as chicory, that extract nutrients from and open poor clays are most valuable in slowly improving soil. Similarly, some long-lived forest trees, like Oaks, have proven ability to thrive in poor soils in southern Australia, and slowly accumulate critically important calcium and boron in their leaves. Soil animals such as earthworms and termites physically mix and improve the soil layers.

Principle 6: Produce no waste

Waste or exchange in nature - Eucalyptus are very efficient at extracting phosphorous from mature leaves because they have evolved in soils deficient in this critical nutrient. Because Eucalyptus foliage is so low in nutrients and contains oils and other substances toxic to soil life, Eucalypts are poor at building humus-rich (high-energy) fertile soils. Deciduous trees tend to build humus-rich fertile soils more rapidly, at least partly because the quality of shed leaves is superior.³

For those of us from rich countries not directly involved in helping these projects in poor countries, the most powerful thing we can do to help is engage in the same process in our own homes and communities. With a much greater degree of self-reliance we:

- Reduce demand for corporate-controlled exploitative export development of Two-Thirds World resources
- Increase the status of self-reliance in the emerging global culture
- Free up capital to flow into underdeveloped countries