

PERMACULTURE AND WHY IT WORKS BEST

from John Barrie Button

I am writing this in response to a recent request for sources of 'hard data' on successful Permaculture projects.

I must admit that my first reaction was indignation. I can understand the concept of quantitative verification of project efficiency (or otherwise), but I know from extensive personal hands-on experience that there are often other significant parameters which should also be taken into account, but which are not so easily measured by existing record collection status. So, I am inspired to outline these for your consideration. Also, I am as strongly aware as anybody, of the capacity to 'doctor' figures, which may portray very different results than reality demonstrates.

As witness to the inappropriate and inaccurate measure of worth of Permaculture. I want to offer the example of a project which I was closely involved with for many years. Perhaps my words can inspire in someone the power to take it seriously, to actually propose experiments that can be observed and – no doubt – which will convince all of Permaculture's importance.

This was only a small local project in Tamil Nadu, south India, insignificant in comparison with so many multi-million dollar interventions of the World Bank, IMF, UN. And the list goes on, of grand funding agencies inaccessible to the majority of people in dire need around the world, denied by their scale

and grass-roots nature to the small quota of financial support essential to initiate or maintain their precious and often life-changing projects. Unlike the grander ones attracting the attention of those great benefactors, these do not require vast dollars or vast energy. The chances of them resulting in great mistakes or wastage is minimised, as too the possibility of distaster, great scandal, or very questionable long-term sustainable consequences.

Our project began with very modest resources, including a pitiful financial base of two or three thousand dollars. Almost nothing, even given the relatively small aim of the project: the reforestation of a sacred mountain. Hill actually, since the peak of Arunachala stands little more than 800metres above the surrounding harsh landscape.

Most people declared the idea of that pile of barren rocks being transformed into a verdant forest as absurdly optimistic, if not impossible. After all, every photographic evidence of the past century had recorded the same thing; stone, patchy grass, and a few straggly bushes here and there. The few attempts at reforestation had been virtually a total failure. Adding to the improbability of success, the mountain represents the deity Siva, Lord of Destruction and Regeneration; worse still, Arunachala is perceived as Lord Siva in the elemental form of Fire. Such a symbol was a potent encouragement for any believer with a box of matches to earn extra karmic merit points by starting a fire on its scantily vegetated slopes. Little wonder there was so little vegetation, even though ancient scriptures had described it as a 'mountain of medicine'.

The funds were meagre, but at least enabled the establishment of a small plant nursery, and the first attempts at tree-planting on a very limited scale. The nursery flourished, but those early plantings were more like a ritual sacrifice, for of five thousand seedlings planted, I can't honestly say if more than the tiniest percent actually survived, their young lives terminated by fire, or goats, or machete. Even a twig can be burnt, and the demand for cooking fuel is virtually insatiable.

I mentioned enthusiasm earlier as a powerful form of energy ignored as immeasurable. Yet without it, and the blind determination it inspired, the project would have withered and died at the first hurdle. Instead, the first setback became the critical spring-board that initiated altogether different results. A re-focus on sites most likely to achieve success proved correct, the need for paid watchmen was obvious and augmented, the nursery expanded into the main temple where water was constant and public attention assured; local support followed in large measure. Funding became available on the heels of our results. Given the failure of the first attempts, now I think of it, perhaps a dose of strong-headed madness in denial of what seemed to have been accurate, also played a role. In any case, small mistakes should lead to greater wisdom and the foresight supporting subsequent success.

I won't go into the trials and tribulations that we endured on the way to achieving the results which eventuated, but instead offer a brief synopsis of those achievements. Nobody would deny now that the the mountain is well on the way towards being a green beacon after so many generations as a great pile of rocks and little else. So for the sake of a balance sheet of inputs

measured against the original aim, the Greening of Arunachala gets a shiny big tick of acknowledgement, at a cost over twenty something years of a bit over half a million dollars in total. Wages, logistics, the lot.

That's pretty good, by any means, but there is so much more to relate, some of it quite easily quantifiable, much of it not. In raising our nursery of three or four hundred thousand seedlings per year, apart from supplying the reforestation needs, we initiated the largest temple garden in India, recreated sacred planting constellations forgotten for long ages, awakened the population to a direct relationship between their culture and spriritual devotion and the regeneration of the topographical feature which dominates their city. Question: How do you measure a change in consciousness? And how far can the consequences lead?

The authorities of the great temple (ten hectares in area) were apparently amongst those whose consciousness changed, for they agreed for us to create forest and gardens on six more parcels of wasteland around the mountain. Bear in mind that this sacred mountain is visited by millions of pilgrims each year whose main focus of devotion is to walk around the base of the mountain, inevitably visiting or passing by each of those regeneration sites. Since we were permitted to declare our works and sentiments on noticeboards at each site, millions of pilgrims from all over the country, all over the world in fact, were made aware of the potential for reclaiming absolutely barren land and transforming it into beautiful, productivity. Who knows what some of them may as a result have been inspired to do? Empowerment by clear example can have far-reaching consequences.

The impression it made had very tangible results to, greatly reducing the need for institutional funding. One of the pilgrims, inspired by our work, even donated enough money to purchase a parcel of 2 hectares of completely arid and abandoned land, encouraging us to establish a Permaculture Demonstration Site. Many agreed that it was an impossible dream, but of course we accepted their challenge gratefully. We did nothing special in particular; nothing that any farmer could not do, without resorting to money or excessive energy input. Just wise 'common-sense applied Permaculture principles including perfect water conservation, complete ground coverage, great diversity of species, animal-plant association, close functional analysis to ensure maximum efficiency and productivity of the whole system. In short, excellent integration of all elements as distinct from the disjointed approach I have so often seen in larger projects. Apparently it is too complex to undertake whole systems analysis and integration. The consequences though, are invariably vastly superior in every sense than the narrow specialist focii still so prevalent.

And guess what? The barren land was transformed into productivity within just a few years, with that productivity increasing year by year with little extra input. Transformation of the working patterns was an important factor in this. I can't pretend, I must admit, that the spectacular transformation created a revolution in district farming practices. In conservative rural situations, the fear of change is often stronger than the proof of desirable change. Still, since agricultural practices are slowly changing everywhere, at least there is a shining example of what is possible. What value is assigned to that evidence

of potential? Potential that anyone can duplicate, regardless of resource (though the scale and speed of transformation may vary of course).

There have been many workshops and micro-credit programs initiated through the project, with abundant consequences, and the whole region is unquestionably more treed and less degraded than twenty five years ago. Our project has certainly been a notable contributor to that improvement, but actually quantifying the direct benefits would be difficult to undertake.

There are springs running on the mountain year-round now, that have not done so in recent memory. If clouds were gathered around the summit in the early morning, as soon as the first rays of the sun hit the rocky slopes, the resulting dry convection heat from all that stone invariably evaporated the clouds quickly. Now though, the same sun hitting the forested slopes stimulates the evaporation of the moist leaf surfaces, and the resulting humid air rising adds to the clouds rather than repelling them, resulting even in some rains that did not fall previously. In twenty five years only. How does one attach comprehensive hard data to such consequents, that accurately portray reality?

The same slopes now forested support a diversity of wildlife – animals, birds, insects and no doubt other life-forms – that have not been seen in years.

Quantifying that in terms of nutrient recycling and fertility-raising would also be a challenging task that nobody has undertaken. It would not be easy to do so accurately anyway.

Perhaps though, one of the most dramatic benefits of the project has been the change in the public consciousness, in the attitudes towards what is possible, in the empowerment of people to get involved, to rush onto the mountain en masse whenever a fire breaks out (they still do, of course) to extinguish it, because they know now the benefits and want to be a part of the changes, to add to them where they are perceived to be good. Not easy to put accurate data on these things either, on the many workers trained originally by the project who have now initiated their own projects as a result of their experiences.

Quite frankly, I was far too busy actually ensuring that the project was functioning well to have time or the energy to devote to recording all the data necessary to satisfy your needs, and the resources of the project were insufficient to justify the studies required, as desirable as they may have been.

One should not forget that this project, successful in abundant measure, was based first and foremost on the principles of Permaculture, at physical, social, cultural and financial levels. After all, Permaculture is so much more than just agriculture or organic gardens. I challenge large aid agencies to put Permaculture to the test; let us show that it will outshine almost every other approach to development projects, leaving the rest in the shade.

I have significant photographic testimony to the progressive story of the diverse aspects of this project, and the financial records were always meticulously maintained. I am sure enquiry to the Annamalai Reforestation Society, Tiruvannamalai, Tamil Nadu, 606603, India would receive

appropriate response.

This example is not unique by any means, and the number is constantly growing, from small to very large. The specific interventions vary considerably, according to climate, culture, needs, finances, experience, limitations. The one constant is the applications are based on the same principles; Permaculture principles. The name is not so important, except to convey a particular integrated concept of the relationship between people and place to create a harmonious, productive 'marriage', which lasts and invariably grows. Success breeds success. We are talking about empowerment; capacity-building in ways which most 'development aid' have scarcely touched. Believe me, I know from firsthand experience and observation.

In any case, I would be open and pleased to present my experience with Permaculture over the past more than 30 years, from Australia, India, Indonesia, Thailand, Philippines, Pakistan, Eritrea, Nigeria, Russia, mainland Europe and the Canary Islands. I have no doubt that any reservations that may exist about Permaculture's relevance – importance is more appropriate to say – to the world of sustainable development and creating a better world, would be largely clarified and dispelled.