

Fresh Paradigm for a Permanent Truce with Nature

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Adapted from a speech delivered at the establishment of the [Sri Lanka Sustainable Energy Authority](#) in October 2007.

Over half a century ago, our nation acquired the status of 'Independence'. Now, more than 50 years later, are we 'independent'? And if so, of what?

By the time a young man reaches the age of 21, he is expected to have reached 'adulthood' -- to be 'independent' of his parents. And yet, in truth, his state of 'dependence' upon his parents, or upon his siblings, will have only changed to the more responsible status of 'inter-dependence' -- to be able to give and to share with his family as well as to receive.

We have a lesson to learn from nations which have had to fight to acquire the responsibility of inter-dependence with the world around them and of their choice of areas in which they will yet choose to be strictly 'non-dependent'.

If we become 'dependent' upon others for food-and-nutrition, for health-and-wellness, or for 'energy', we will quickly erode the quality of our 'independent' status, and even the status of non-dependence.

Several of these new nations have even found it expedient to extend their areas of non-dependence to include 'security' or 'defence' for to compromise in any of these basic areas would imply a descent into beggary.

We in Sri Lanka have come very close to dependence upon the outside world for such basic rights as food and health. Quite apart from energy.

However, the recent announcement in Parliament towards the formation of a Sustainable Energy Authority is the first major step towards true non-dependence in the half century we have claimed ourselves as an 'independent nation'. I congratulate our legislators on this foresight, and honour our colleagues upon whom the trust is placed for achieving that status.

Interestingly, we note that ancient wisdom has clearly defined the place of energy as fundamental to the state in which we preserve the non-dependent status of our nation. And the Sustainable Energy Authority is fundamental to the preservation of our environment, our health, and the sustained nutrition of our people.

Our once pristine environment has deteriorated only since we let ourselves be persuaded to import coal, then petroleum. A few of us may still recall the fresh breezes all around our coasts, as [captured](#) in:

*“What though the spicy breezes blow o’er Ceylon’s isle...
Where every prospect pleases...”*

This sadly gave way to the pollution of fossil-based transportation and energy systems which we then imported as ‘progressive’ and ‘modern’...giving way to the ‘wants’ and ‘desires’ of the cultures which we have so easily adopted...The ‘majang’, now, of our environment.

What do we really mean by ‘Sustainability’?

Surely not permanence? Which our doctrines wisely suggest is non-attainable; But continually growing...*“Like the ripples from a pebble someone tosses in a stream...
Never ending nor beginning in a half-forgotten dream”*.

In the tropics, we’ve been blessed with a perennial agricultural system: alternating cycles of rain and drought under a perennial canopy of sunshine. Our most sustainable agriculture - and nearest to the natural forest – is of palm-trees and of rubber. The natural forest has always been our most sustainable and continuing agriculture. Until, of course, man interfered!

Our forefathers wisely appreciated the vital need for Conservation and indeed that was the background upon which our Energy Conservation Fund commenced. Also the conservation of water between cycles of rain and drought, rather than merely for supplementary irrigation to the culture of rice.

Rice was a seasonal, temperate-climate crop which we imported from southern China as it had adapted well to the saturated valleys (the *vel-govithan*) of our tropical regions. Vast man-made lakes were created which sustained the water level for the forests and rotational farming on rain-fed uplands (*haen-govithan*). These, in turn, sustained the balanced nutrition and health of our nation.

And let us not drown ourselves in the myth of dependence on just one or two (possibly-sustainable) energies...neither just hydro, nor just solar, nor just wind...nor just biomass. The developed world around has provided ample evidence of the futility of such blinkered, or one-tracked, vision.

We must also address issues of storage -- the ability to store our energies from season to season from periods of glut to periods of scarcity.

This was the lesson passed on by our forefathers who constructed vast tanks, so that none of the vital rain waters should pour as waste into the sea without first having served mankind. And they used unbelievably simple means to achieve these, perhaps just manpower and elephant power.

A Fresh Paradigm

We may well have to find better, and simpler, ways of doing things, as appropriate to a small island in a vast ocean.

The English engineer James Watt first designed the steam locomotive to utilise their ample resources of coal. Rail transport then spread throughout the world, replacing the horse as it went. The power came from their resources of coal, to replace the forests which their forefathers had devastated. Pollution of the environment was of little consequence in those days of less dense populations.

We in Sri Lanka are among the last, still, to indulge the higher expense and environmental pollution of fossil-fuelled railways. And likewise on our roads. All the filthy pollution of our roads is, sadly, imported. And at what great cost!

In the context and terrain of Japan, however, rail found new life, now with the fastest electric trains in the world. The simplicity, economy and environmental purity of electricity has taken over in Europe too; as also in India, and throughout the Americas and Europe. Their paradigm has since shifted to the air.

In Sri Lanka, WE TOO need to find a better way of doing things which make better use of our own abundant natural resources. A fresh paradigm towards a permanent truce with Nature -- in concurrence with her pace and in sync with her rhythm.

Our universities should certainly dedicate study and direct innovation to the design and development of energies particularly well suiting the unique environment with which we are blessed. We also need to develop storage systems for conserving the energies thus benignly produced. We do not need to wait billions of years for the lush biomass around us to become fossilised...We are privileged to grow and harness it, sustainably, HERE and NOW!

Sustainable Fuel, Fertility

Over the past decade, we have proven the ability to restore wasted and eroded lands - such as much of our Dry Zone - to sustainable fuelwood forest and fertility.

Dadayampola is a rural hamlet near Hanguranketa in the Uda Dumbara region. It was once a productive tea growing district, but - since misdirected land-reform - now erodes rapidly into the valley of the Mahaweli Ganga.

Barren hillsides present a picture of approaching desertification as is evident throughout the now-dry regions of our country which we know were once heavily populated in earlier decades and centuries. Ruined cities now stand as mute testimony to past glories and indulgences.

A little over a decade ago, a sincere effort was made to plant an entire valley at much-eroded Dadayampola with a range of nitrogen-fixing trees, along contoured ridges to provide fertility to a variety of crops growing between them -- the system of Sloping Agricultural Land Technology, or SALT.

This was already proving itself in tropical West Africa and on the island of Mindanao in the Philippines.

However, it was nothing new. It was what our own Department of Agriculture had recommended half a century ago. But sadly, it became neglected under the fervour to adopt high-external-input technologies funded from the temperate regions of the world.

The so-called 'Green-Revolution' suffered likewise with the inevitable inability to sustain the ever increasing costs for the external inputs it demanded. The population drift to towns for survival continues unabated.

Recent visits to Dadayampola valley show a remarkable transformation: with lush vegetation and obvious well being contrasting with the dry barrenness of the surrounding countryside. When asked whether they had unusual rainfall to account for the change, a farmer replied: "*Mahathmaya, may mulu yayatama dhang kisi idoreyak nehe!*" (meaning, there is no sign of any drought anywhere in this area).

That systematic forestation for fertility and fuel can also bring about remarkable changes in the environment is not something strange for residents of our forest-simulating rubber-growing regions of the country.

Symbiosis

Symbiosis, you will recall, is the facility for two or more very different processes to function together in harmony (while synergy is when these processes combine for even greater benefit than when functioning individually).

Sri Lanka is uniquely located within the humid-tropical regions of the world, and blessed through year-round sunshine, with year-round photosynthesis to derive year-round growth, for the sustained production of energy and of fertility.

The Dadayampola story, which is now being replicated through much of sub-tropical India, too, is clear evidence that in the tropics we have the means for deriving our own energies without recourse to the indignity of mining resources which should otherwise be conserved for sustaining future generations of our peoples.

Clearly, the sustainable management and conservation of energy is fundamental to the future sustainability of our nation and of its peoples.

Rome was not built in a day. Neither can such a far-reaching task be performed overnight. But the very comprehensive nature of the undertaking -- with inevitable spin-offs for our country's agriculture, its transportation system, its health and environment -- all will need very careful planning and programming, with clear ideas for the priorities which must prevail.

The Members of this Authority all have broad shoulders. They will need them. They have our love, our support, and deeply warm wishes for accepting stewardship for this monumental task, perhaps the most vital task towards the sustainability of our nation.

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<http://www.dailynews.lk/2007/10/29/fea02.asp>