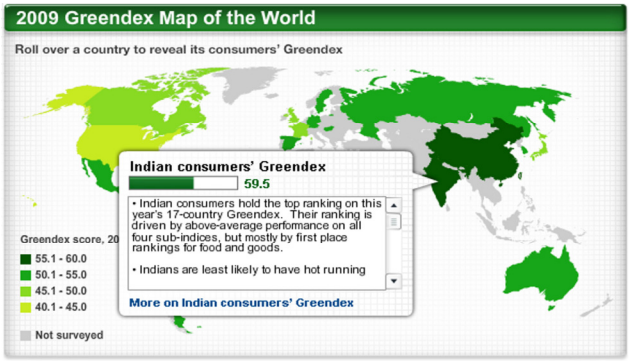
Echoes of Eco

May. 2009 Vivekananda Kendra- nardeo Newsletter Vol:1 No:3

Eco-Views



Indians top Green Index Survey and Americans come last.

In order to give people a better idea of how consumers throughout the globe are performing in taking action to preserve our planet by tracking, reporting, and promoting environmentally sustainable consumption and citizen behavior, a Greendex survey was conducted by the National Geographic Society and international polling firm GlobeScan.

Greendex survey:

The second annual Greendex survey researched 17,000 adults online in 17 countries to determine consumer attitudes and their behavior.

Consumers in India, Brazil and China scored the highest for a second year in a row, for their green behavior. Americans scored the lowest.

Why does India top the list?

Factors contributing to the high ranking of India include:

• 24% consume chicken, 21% consume fish and sea food and 13% consume beef. Consumers in India rarely consume meat including beef.

41% have home heating and 28% have hot running water in their homes.

• A high incidence of Indians use on-demand electric water heating.

• 15% use solar energy to heat water

• 34% purchase "green" electricity

• 74% own motorcycles or motor scooters, the most of all consumers surveyed. Relatively few own vehicles.

• 35% eat self-grown food several times a week or daily, the most of all surveyed.

• 48% avoid excessive packaging regularly just like Germans and Australian consumers.

Why are Americans lagging behind?

• Americans score the lowest percentage on public transit use every day

• Only 58% drive alone

• 61% never use public transport, folks never taking public transit.

• 55% reside in homes with 7 rooms or more. They have the lowest score on the green housing index.

• Americans also rank lowest in the list of countries eating locally grown food

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To Mother Earth

I proclaim veneration to the mighty Sun,
to star studded sky and Earth,
to Mitra,
to the benevolent Varuna,
to the conferrer of happiness,
the showerer of benefits.
Praise Indra, Agni, the brilliant Aryaman, and Bhaga,
so that, enjoying long life, we may be blessed for generations;
we may be happy through the protecting virtues of the Soma.
-Rig Veda-

Awaken within
For a planetary awakening

The Vision

Personality development in the real sense refers to deeper levels of a person.
-Swami Vivekananda

The Five fold development

VK-NARDEP promotes a holistic development of personality of the children. This includes:

- Physical development of the body
- Intellectual development of the brain
- Vital development for the harmonization of inner being
- Emotional development for the formation of social and inter-personnel relationships
- Manifesting the innermost essence through all the activities one performs

All these are taken care by different forms of exercise, group activities, games, multimedia sessions and also Yoga sessions.

Personality development programme for children at Vivekananda Kendra - nardep

His Holiness Swami Vimurthananda, Editor of Sri Ramakrishna Vijayam inaugurated the personality development camp for the children. Various activities and lecture sessions enriched their camp.

More than one-half of the world's major rivers are being seriously depleted and polluted, degrading and poisoning the surrounding ecosystems, thus threatening the health and livelihood of people who depend upon them for irrigation, drinking and industrial water. - Ismail Serageldin, Chairman of the World Commission on Water for the 21st Century- Water Forum

Water wars?

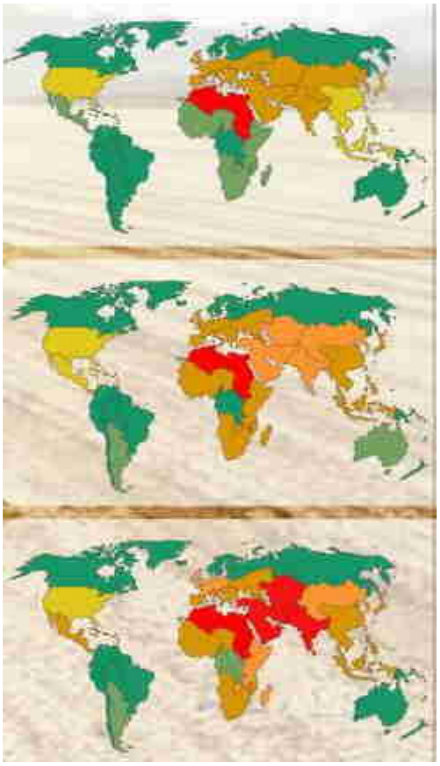
1970 Warning Signs: In 1970, water consumption worldwide was half what is today. with 80 percent of all sickness in the developing nations linked to polluted water, and with populations sharply on the rise, the urgency of water management became apparent.

2003 Dry and Dirty: Over 1.3 billion people have no access to clean water. At least 2.2 million people annually die from diseases related to poor sanitation and contaminated drinking water - that is about 10,000 deaths from bad water (and no water) each day.

2025 Parched Populace: The United Nations estimates that the world's per capita water supply will drop by 1/3 in the next years. The worst strain will be in Africa, Middle East and South Asia where populations are growing fast and rivers are running dry.

Who will have water? Percentage of world water supply by natural economic region:

Down the timeline



Our neglected water bodies

Be an ECO-Warrior

Make your Garden conserve water

Choose a water-efficient irrigation system such as drip irrigation for your trees, shrubs, and flowers.
Saving is : 15 gallons / each time you water.

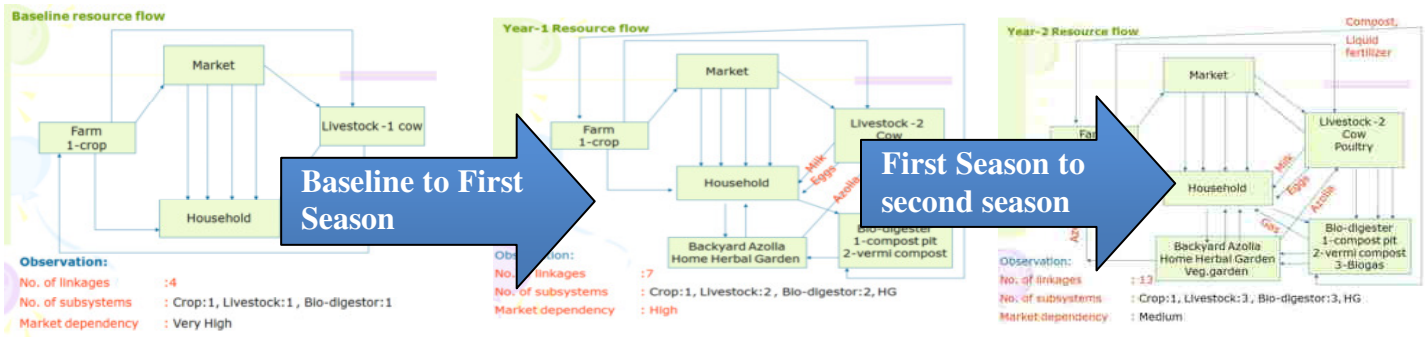
Water deeply but less frequently to create healthier and stronger landscapes.
Put a layer of mulch around trees and plants to reduce evaporation and keep the soil cool.
Organic mulch also improves the soil and prevents weeds.
Saving is: 20-30 gallons / each time you water / 1,000 sq. ft.

Plant drought-resistant trees and plants.
Saving is: 30- 60 gallons / each time you water / 1,000 sq. ft.

[courtesy: http://www.saveourh2o.org/]

Happiness is when what you think, what you say, and what you do are in harmony.
– Mahatma Gandhi

Sustainable Agriculture: Reducing external dependency



The above complicated flowcharts actually reveal a simple truth: As sustainable technologies get integrated with farming community the market dependency decreases while forward linkages to market increase.

At Kozhikottupothai village when VK-NARDEP started the work the productivity of the soil was getting reduced year after year due to intensive chemical farming and mechanization of the farms. The physical qualities of the soil like soil tilth, porosity etc. and the biological characteristics like the microbial flora and fauna, the organic carbon content etc. had deteriorated to such a level that the soil was almost biologically dead.

The farmers were finding it difficult to sustain the yield year after year even with more inputs like fertilizer and agro-chemicals. **The net income from the farm is also decreasing year after year which is coming even below the break-even point even without accounting the cost of own labour. This has led the farmers to heavy borrowing from financial institutions and money lenders with the result that farmers are in heavy debt trap. Many farmers sold out their farmland to pay back the debt and have become farm labourers.**

Farmers were practicing chemical way of farming for the last few years with excessive chemical fertilizers and pesticides. There are frequent incidents of pest attacks which made farming unprofitable. If farmers were unemployed for most part of the year as their farming activity is limited to two-three months per season. The flow-chart above shows the vulnerable market linkage as well as dependency of the farmers.

Above: Home herbal nursery by farmer: Herbal products are forward linked to market through women SHGs

Above: Steps in technology integration in rural communities: Training and introducing of technology in their backyard

We introduced Azolla production units and related bio-feed in all the farmers who have cow. This reduced the dependence on chemical fertilizers and pesticides; Vermi compost units were introduced followed by *Pancha Gavya* production units (Bio-manure and Bio-pesticides units)

Another important achievement was the setting up of a common facility center and equipped it with instruments. Soon the farm clubs were farmed involving all the farming families of the project area. These farm clubs in turn acted as instruments for market linkage and later activities expanded to increasing forward linkage to the market of value added products. The farming club members meet once in two weeks. A common account was opened to empower the farming families involved.

Summer Special: Mind our mind

The Fourfold nature of the Mind

Memory:

The storehouse of memory and impressions of our past experiences presents various possibilities before the mind. This storehouse called *chitta*. It is in this storehouse that the impressions of our thoughts and actions – good and bad – are stored. The sum total of these impressions determine our character. This *chitta*, again, is what is known as our subconscious mind.

Deliberation and conceptualization:

Not yet, sure, the mind examines the many options presented before it. It deliberates on several things. This faculty of the mind is called *manas.* Imagination and formation of concepts are also functions of the *manas.*

Determination and Decision-making:

Buddhi is the faculty responsible for decision-making. It has the capacity to judge the pros and cons of things and find what is more desirable. It is also the discriminative faculty in a person, which enables him to discriminate between the real and the unreal, between what is to be done and what is to be avoided, what is morally right and what is wrong. It is also the seat of will-power so essential for personality development and hence this aspect of the mind concerns us the most.

"I" consciousness:

Appropriating tooneself all physical and mental activity eg, ' I eat', 'I see', 'I talk', 'I hear', 'I am confused', etc, is called *ahamkara* or 'I' consciousness. As long as the 'I' identifies itself with the undisciplined body-mind complex, human life is dictated by events and circumstances of the world; we become happy with pleasurable events and miserable with adverse circumstances. More the mind gets refined and disciplined, more does one get to know the real source of 'I' consciousness. Correspondingly, a person becomes more balanced and equi-poised in his daily life. Such a person is no longer swayed by any event or circumstances of life.

[courtesy: meenasundar.rediffiland.com]

Nature enlists the co-operation of all its units, each working for itself and in the process helping other units to get along their own too. When this works out harmoniously and violence does not break the chain, we have an economy of permanence. – J.C.Kumarappa

Biogas Technology Dissemination: BgM strategy

Biogas dissemination in the last forty years has realized cumulatively only about 30 percent of India's total national potential. While the potential is estimated to be 12 million biogas plants of 2 cubic metre, the installed plants number only 3.7 million plants as on March 2004. Nevertheless this cumulative installation of the biogas plants has achieved only 30 percent of the potential over the period of almost forty years.

The major bottle-neck faced by the Biogas technology in its dissemination and integration, is the unfavorable cost-benefit analysis done in conventional manner. For example a study of biogas plants, concludes that in terms of quantifiable monetary ('real economic') benefits and costs, the biogas plants programme resulted in annual monetary saving of Rs 128 million as against the annual cost of Rs 150 million.

However if the analysis is to take into account the conservation of trees, externals such as pollution, improvement in the health of women folk, use of Biogas slurry as manure and its replacement of energy intensive chemical fertilizers, improvement of soil quality by the use of Biogas slurry application etc. then the scenario will provide a more complete picture.

It is in this context that the promoting of Biogas Manure (BgM) based sustainable farming technologies becomes important in the dissemination of biogas technology. The late renowned Gandhian economist J.C.Kumarappa noted this important dimension of biogas technology half a century ago and stated that digested slurry which comes out of the biogas plant is more important than the gas itself which is used for cooking purposes.

BgM and its features:
Biogas Manure (BgM) is a by-product obtained from the biogas plant after the digestion of dung or other biomass for the generation of methane rich gas. BgM Supplies essential nutrients; enhances water holding capacity and soil aeration; accelerates root growth and inhibits weed seed germination.

Types of BgM:
Three types of BgM have been identified. They are Liquid BgM, Semi-dried BgM and Dry BgM.

the case studies at both individual and village levels show that BgM has high ecological and economic potential and the use of BgM should be promoted with respect to the cropping systems of the farmers who use Biogas plants. This can help the integration of the technology with the vital aspects of the farmer's life. This can help in speedy conversion of unutilized potential for Biogas plants into realized installed Biogas plants and also help reduce the discontinuation of Biogas plants usage.

The vast experience of VK-NARDEP in biogas plants has enriched the national biogas scenario with user-friendly manuals in vernacular languages.

[The above essay based on a paper submitted by Sri. G. Vasudeo at International Seminar on Biogas Technology for Poverty Reduction and Sustainable Development held at Beijing.]

For a pilot project to encourage livestock-owning farmers in southern Tamil Nadu to convert animal waste into biogas to meet their energy needs and use the residue to increase soil fertility VK-NARDEP has started constructing a biogas complex. This project is supported by Ford Foundation.

End result of Exploiting Nature

I plucked your flower,
O world!
I pressed it to my heart
and the thorn pricked.

When the day waned and it darkened,
I found that the flower had faded, but the pain remained.

More flowers will come to you
with perfume and pride, O world!

But my time for flower-gathering
is over, and through
the dark night
I have not my rose,
only the pain
remains.

– Rabindranath Tagore

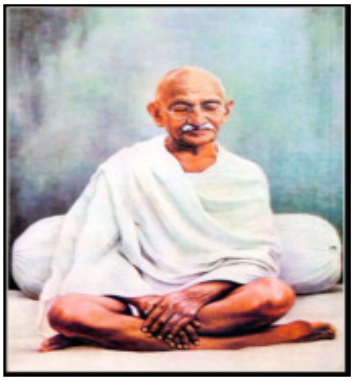
(The Gardener LVII)

Non-Violence & Nature

Complete non-violence is complete absence of ill will against all that lives. It therefore embraces even non-human life not excluding noxious insects or beasts. They have not been created to feed our destructive propensities. If we only knew the mind of the Creator, we should find their proper place in His creation. Non-violence is therefore, in its active form, goodwill towards all life. It is pure love….

It is an arrogant assumption to say that human beings are lords and masters of the so-called lower creatures. On the contrary, being endowed with greater things in life, they are the trustees of the animal kingdom.

– Mahatma Gandhi



Prescription for sustainable development

Start all economic reasoning from the genuine needs of the people and help the poor to help themselves out of poverty.

Revitalise and foster not only agriculture as such but also all possible productive, non-agricultural activities in the rural areas such as cottage industries for potters, weavers, shoemakers, carpenters, blacksmiths etc.

Resist the further concentration of the growing population in large cities by reversing the trend of migration from rural to urban areas.

Develop systematic policies, based on the best available knowledge for the mobilisation of all productive resources, the greatest of which is the population itself.

– E F Schumacher

(based on Gandhian idea of national development)