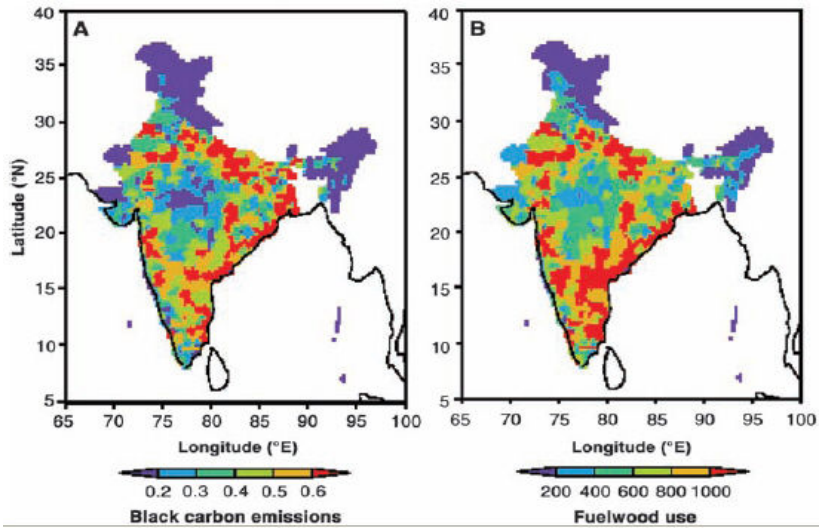
Echoes of Eco

October, 2009 Vivekananda Kendra- nardep Newsletter Vol:1 No:8

Rural Cooking and Global Warming



Forget the flapping of butterfly wings and its connection to stars. Can the drudgery of a rural woman in an Indian village affect the atmospheric layers and accelerate global warming?

In the Indian and larger South East Asian region, high concentrations of pollution particles including "soot" or black carbon have been observed over the Indian Ocean. Indian scientists have discovered by studying carbonaceous aerosol measurements and fuel use estimates, that the combustion of solid biofuel—such as wood, agricultural waste, and dried animal manure in cooking stoves—is the largest source of BC emissions in India.

The diagram above shows the high correlation between high Carbon emission and fuel wood usage in India. The study is important for the ecological connections it brings out: from rural societies to layers of the atmosphere.

Venkataraman et al, the team of scientists who studied this phenomenon point out that the solution is to control these emissions through cleaner cooking technologies. In their paper published in the *Science* magazine they point out that such cooking technologies in addition to reducing health risks of several hundred million users could be of crucial importance to climate change mitigation in South Asia.

The study underscores the need for clean sustainable cooking technologies in rural areas. That a problem endured silently by the village women in developing countries can actually change the rain patterns and contribute to increased intensity of droughts and floods, shows how connected is the planet we live in. And why removing the suffering of a rural housewife is vital for the well being of planet itself.

Journal reference: C.Venkataraman et al, Residential Biofuels in South Asia: Carbonaceous Aerosol Emissions and Climate Impacts, *Science*, Vol.307 pp.1454-1456

In this issue:

These rights we hold true for every citizen …

Let no one suffer from hunger and disease or extremes of heat and cold. None shall suffer in a state either from general scarcity or specific exclusion.

- Apastamba

Infinite growth of material consumption in a finite world is an impossibility.
- E. F. Schumacher

Sustainable Agriculture
The need and the principle

One of the important points of difference between sustainable agriculture and chemicalized agriculture is that while the former is biomass based the latter is yield based. The dominant thinking for the last five decades, has concentrated on the reductionist target of yield and this in turn has resulted in agriculture becoming more and more single crop oriented. Monoculture of the mind bred monoculture in agriculture. This in turn has made the agricultural fields highly vulnerable to external factors—from invigorated pest attacks to market forces violently unstable and unpredictable.

So what is the alternative?

System approach to a problem states that more the number of diverse elements in a system and more varied their interactions are, more stable the system will be. In the case of a farmer more diverse his field and more number of dynamic interactions between his farm elements, freer he will be from the vagaries of external forces.

Backyard Azolla cultivation is one such technology that can be used as a component system in the agro-homestead of the farmer.

Sustainable Agriculture
The Role of Azolla

Backyard Azolla cultivation is a simple backyard cultivation technology of nutrient-rich biomass-rich cattle feed has been perfected and made suitable for ordinary marginal dairy farmers.

This technology provides a cost-effective way for the dairy and poultry farmers to combine high bio-mass and high nutrient bio-feed to a spectrum of livestock with encouraging field trial results. This is the first time such a low cost unitary livestock feed has been designed for backyard production. (i.e. it can be given as a feed substitute to cow, cattle, fish, rabbit, poultry etc: it has been field-tested in all these livestock.)

The nutrient content of Azolla bed can be manipulated by the different combinations of Azolla and Azofert – so that the different nutrient deficiency scenario arising during the life of a livestock can be tackled.

It combines the concept of input-throughput-output by the following:

•Value addition through biogas slurry to the Azolla bed

•Feeding cattle-dung enriched Azolla back to livestock itself, thus making an efficient nutrient cycle.

•Being part of the low cost input for agriculture and livestock it promotes biogas technology dissemination

Azolla becomes an important link connecting the marginal farmer's household, homestead and farm.

[For Farmers' feedback on Azolla see page-4]

This month…

Round Table Discussion on Current status and Future Strategy for the Rural Drinking water and Sanitation was held by Ministry of Rural Development, Dept. of Drinking water Supply, New Delhi on 21st October which was attended by VK-NARDEP secretary G. Vasudeo.

Holistic Health Activities

- Green Health home at Vivekanandapuram treated 202 patients in seven days.
- On 25th October, Dr.Ganapahty gave a guest lecture at the Workshop on Documentation of Ethno medicines, held by FRLHT, Bangalore at Puthoor, Andhra Pradesh.
- On 26th October, Dr.Ganapathy gave a lecture at Workshop on Varma bone setting techniques organized by Sri Puttru Maharishi Hospital, Velloor

Self-Realization through Service

A friend once inquired if Gandhi's aim in settling in the village and serving villagers as best he could were purely humanitarian. Gandhi replies, "I am here to serve no one else but myself, **to find my own self-realization through the service of the village people**."

That the self advances and confirms the myriad things is called delusion. That the myriad things advance and confirm the self is enlightenment.. – Dogen (Zen Mystic)

This month… Agriculture

- A Workshop on "High Potency Compost Training Programme" was organized by Vivekananda College,Agasteeswaram at Gramodaya Park, on 14th. 22 Students attended it. The resource person was Sri, S. Rajamony.
- Workshop on sustainable agriculture was held at TRC Kalluvillai and 11 farmers attended the camp. The camp was held on 14th and 15th and it was sponsored by Farmers Training Center, Govt. of Tamilnadu.
- Dr.Kamalasanan Pillai attended a Joint workshop of IARI scientists and NGOs at IARI New Delhi on 20th.
- Workshop on "Azolla Cultivation" was held at Kalluvilai on 23rd and six persons attended the camp. The resource person was Smt. S.Premalatha.
- A visit to Nutraville International Ltd., Mylapore, Chennai was made by Shri.G.Vasudeo and Muneeswaran in connection with the transfer of Azolla technology.

This month… Renewable energy

- Workshop on *Shakthi Surabhi* was held at Kalluvilai TRC on 22nd and 30persons attended the camp. The resource person was Sri. Muneeswaran and Er.Ramakrishnan. The workshop was sponsored by NABARD.
- Awareness programme on *Shakti Surabhi* Bio-methanation plant was held at Swamithoppu on 27th of this month. 73 women attended this awareness programme. It was sponsored by NABARD.

- Awareness programme on *Shakti Surabhi* Bio-methanation plant was held at Kottaram on 28th of this month. 31 women attended this awareness programme. It was sponsored by NABARD.

- Three *Shakthi Surabhi* plants were commissioned at Chennai, Panchalingapuram Kanyakumari district and Sri Ramakrishna Ashram Vellimalai Kanyakumari district.

That the self advances and confirms the myriad things is called delusion. That the myriad things advance and confirm the self is enlightenment.. – Dogen (Zen Mystic)

Farmers Feed back on Azolla as Poultry feed

Shri.Rajagopal, poultry farmer: We heard about the benefits of Azolla as poultry feed and were doubtful if it could be that good as claimed. Why not give a try? So I thought and got trained in its cultivation and usage. I found it really a miracle product. My birds are healthier and the hens lay good eggs and I am impressed. I would recommend that every poultry man should use Azolla which is cheaper and can be cultivated within his farm or house compound.

Shri.Ramadoss Lingarani, paddy cultivator:
I did not want to be left behind when many in our village wanted to be trained in organic farming at VK-NARDEP. I did learn about vermi compost and Azolla and thought that they were short term fads promoted by the organization. To my surprise I found that Azolla did help me to get a better harvest of paddy than in earlier years at a less cost. Moreover I did not have to run to the agriculture department or market to purchase it.

Farming without poison: Pongamia Pest repellents: Different Methods

Method- I: Soak 1 kilo of Pungam leaves (Pongamia pinnata) for a night. Then next day grind the soaked leaves. Add five litres of water to this and then spray on the crop-spread of 2 cent land.

Method-II: Take 50 grams of Pungam seeds and after removing the outer shell, grind them well and soak it for the night and then add a litre of water. This solution can be sprayed for 1 cent land.

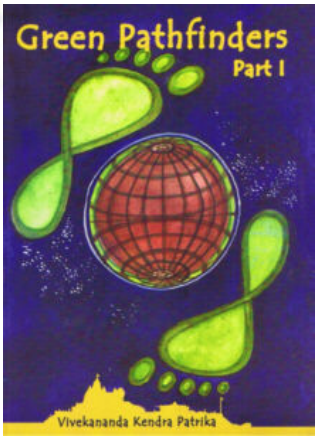
Method-III: Take 100 gram Pungam oilcake. Grind it and soak it for a night and then next day mix with water (1 litre) and use it on 1 cent crop-spread.

Method-IV: Take 30 ml Pungam oil and mix it with 1 litre water and shake vigorously and then spray at once over 1 cent land.

Method-V: Add 10 ml Pungam oil with 40 ml neem oil and then mix with 1 litre water. Shake it vigorously and immediately spray over 1 cent land.

All differences in this world are of degree, and not of kind, because oneness is the secret of everything. – **Swami Vivekananda**

From Our Publications



Green Pathfinders – Part I

This is a companion volume to the earlier Kendra Patrika titled "Green Footprints". While the former volume dealt with the concepts, this volume brings out how people who are eco-inspired are working at ground zero helping our planet and our posterity to survive.

The book is divided into three sections. The first section deals with green technologies. The second section deals with water management and third section deals with green solutions for global warming.

In section-I we meet such diverse eco-savants like J.C.Kumarappa and Laurie Baker. We also see how Kumarappa comes to life at Kutthampakkam village panchayat. There is an article by Prof. C.Srinivasan who provides a lucid introduction to nanotechnology bringing out its facets which reveal the promises it holds for the future of sustainable technology. What does Ashok Sanghvi of Gujarat have in common with Masanobu Fukuoka of Japan? Or for that matter Narayan Reddy of Karnataka and P.D.Bapna of Maharashtra? Read the book.

In Section-II we see how water is everybody's business. Being a scarce resource which has been taken for granted, we are facing a global threat to civilization because of this attitude. This section also introduces water-heroes such as "Pani Baba" Vilasrao Salunke, Rajendra Singh of Tarun Bharath Sangh etc. and also the inspiring story of how the people of Hiware Bazar turned the challenge of water scarcity and government apathy into a success through community effort.

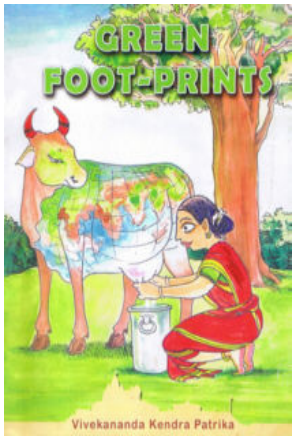
Section-III starts with the grim warning of how the global village has been set on fire without the presence of a fire fighting system. The articles in this section deal with alternatives such as solar energy, wind energy and biofuel etc with specific reference to India. This section also explores how the traditional value system as well as individual responsibility can check the scary scenario of global warming and impending eco-doomsday.

The book also provides many shining indicators in the path towards sustainable development. For example, in 2005 the amount of electricity produced by environmentally friendly ways increased by 24 percent – to 60,000 megawatts.

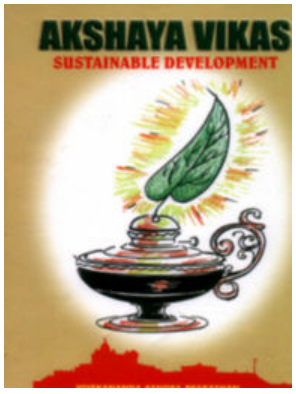
The book is rich not only in content but also in cartoons which can also be called eco-toons. This book is a must for anyone who wants to understand how to survive in the future and appreciate as well as yearn for a beautiful, meaningful and ecologically sustainable life.

Green Pathfinders – Part I
(pages:364)
Vivekananda Kendra Prakashan
Price: Rs 200/-

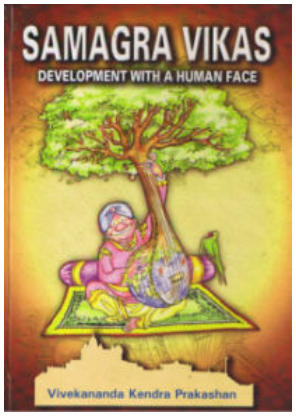
If you liked this review then you may also find these titles interesting



Green Footprints



Akshaya Vikas
Sustainable Development



Samagra Vikas

Development with a human face

Contact:
Vivekananda Kendra Prakashan Trust,
5-Singarachari Street, Triplicane,
Chennai – 600 005
Phone: 91-44-28440042
Email: vkpt@vkendra.org

Everything on the earth has a purpose, every disease a herb to cure it, and every person a mission. This is the Indian theory of existence. – Mourning Dove (Native American)

Celebration of awareness

I and many others known and unknown to me call upon you:

To celebrate our joint power to provide all human beings with food.

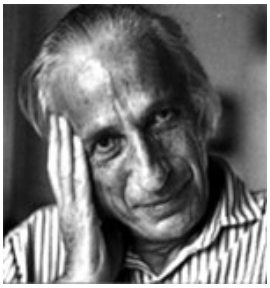
To discover together with us what we must do to use mankind's power to create the humanity, the dignity and the joyfulness of each of us.

To be responsibly aware of your personal ability, to express your true feelings and to gather us together in their expression.

We can only live these changes: we cannot think our way to humanity. …Let us join together joyfully to celebrate our awareness that we can make our life today the shape of tomorrow's future.

~ *Ivan Illich*

Latin American thinker



Loving Nature

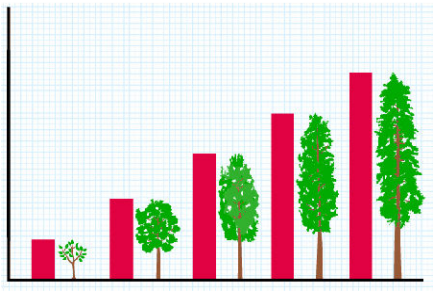
Children, man is not different from Nature. He is part of Nature. The very existence of human beings on earth depends on Nature. In truth, we are not protecting Nature; it is Nature who protects us.

Nature is our first mother. She nurtures us throughout our lives. Our birth mother may allow us to sit on her lap for a couple of years, but Mother Nature patiently bears our weight for our entire life. Just as a child is obligated to his birth mother, we should all feel an obligation and responsibility towards Mother Nature.

If we forget this responsibility, it is equal to forgetting our own self. If we forget Nature, we will cease to exist, for to do so is to walk towards death. Mere intellectual understanding is not enough. People should be taught to function from their hearts.

~ *Mata Amritanandamayi*

Spiritual Leader



Sustainability

Sustainability will require the adoption of a system that models natural processes. Unlike in the linear approach the use, processing, transportation and consumption of resources and products must flow continuously as a closed loop to the extent possible, rather than as a linear system. The manner in which we process, modify and transport resources must be in harmony with the environment. It is crucial that consumer habits must be changed leading to lower waste production, careful use of non-renewable resources, reduction of the need for transport and a more even distribution of goods and services. ….Furthermore, we should design systems that use energy at a reasonable pace. We need to evaluate every design for its impact on plant, animal and human life by considering immediate and long-term effects.

~Gábor Náray~Szabó

Chemist