

# Echoes of Eco



March , 2011

Vivekananda Kendra- nardep Newsletter

Vol:3 No:1

## Ecology to Deep Ecology



### In this issue:

- Ecology to Deep Ecology
- Sustainable Building Practices
- The Happenings – I
- The Happenings-II
- Know Sustainable Technology
- Our Publication
- Visions of Wisdom

### Experiencing all Existence as Divine



***One who experiences all animate and inanimate nature as existing in Divine and also experiences the Divine in all of them by this experience, one becomes free of fear and does not ever need to seek concealment.***

***- Isavasya Upanishad (verse 6)***



Ecological theory has one principle at root: the universe is one being and not an assembled mass of separate objects. Any theory of existence which proposes the contrary is not fundamentally ecological. We can restate and expand this root principle. The Reality of the earth is one autopoietic (self-creating) and autognostic (self-reflexive) being and not an assembled mass of independent existents. Since many theories of existence with which western humanist culture is imbued presuppose a universe of separate existents, this basic principle of ecology is revolutionary for culture generally and goes far beyond the analysis of the natural environment.

If we take ecology seriously in an analysis of world problems, we must logically extend our theories of existence to conform with the ecological principle. Whatever aspect of existence is being contemplated, the ecological principles apply. The food chain, for example, or a soil system, extends immediate analogical signification to the planes of identity, psychology, and culture.

....What, then, is deep ecology, or symbolic ecology?

The common principle of the holon links the three areas of ecology, the philosophy of esoteric tradition, and metaphorical/poetic communications. This linking is itself a symbolic act, which potentially abolishes the distinction between them. A brief but direct explanation of the informing structural principle is necessary. Ecology maintains that living systems cannot be understood nor properly managed unless they are viewed as interrelating elements instead of separate independent existents. The implicit homology between disciplines here shows that a practical science, an arcane mystery tradition, and a form of artistic practice all conform very closely at the structural level. It is therefore no surprise to find the mystics calling the cosmos the poem of the Absolute, to find Gaia-theorists speaking of the dance of life, and poets talking about the oneness of life being observable only through metaphor, the 'perception of resemblances'.

In other words, according to the same rule, a disaster in the planetary ecosystem has its analogic disaster in the human interior

**[Paul Davies:** Faculty of Humanities at the University of Ulster in Ireland, his work has sought to bring the esoteric education into the study of culture.]

***Service to humanity is the highest form of worship – Swami Vivekananda***



## Sustainable Building Practices: From Waste to Wealth- Part-3

This month...



### Green Building Technology :

Conventional building materials such as burnt clay bricks, concrete blocks, cement and steel are energy intense. The production of these building materials consumes energy from coal and results in the emission of green house gases like CO<sub>2</sub> contributing to Global Warming. Production of clay bricks also degrades valuable agricultural land.

The "so called modern "building methods have damaged our Eco-system. For example:

#### 1.Bricks:

- Constitute 27% of energy required for house construction
- 5 lakh of bricks consume 1 acre of agricultural land
- 1 lakh bricks emit 31 tones of CO<sub>2</sub>

#### 2.Fresh Water:

- A bag of cement mix needs 350 to 500 liters of water
- Thus,60% volume of a building is made up of water!

#### 3.Cement:

- Factories emit 90 kgs. of CO<sub>2</sub> to produce a bag of cement.

#### 4.Sand:

- 10 to 15% of building material used in house construction is precious river sand.

#### 5.Steel:

- Production of 1 ton of steel emits 4.3 tones of CO<sub>2</sub>

Today's building methods make an adverse impact on environment as they consume materials from non-renewable sources. Building industry consumes 40% of energy produced and raises emission of CO<sub>2</sub> into atmosphere by 40%. Moreover, an indiscriminate use of natural resources is highly unsustainable, causes deforestation, and damages Eco-system. This leads to Global Warming and Climate Change.

No wonder our elders and the learned advocated alternative methods which are in harmony with nature. Here, we will discuss only the following few techniques.

#### 1. Filler Slab:

unwanted and non-functional tension concrete is replaced with filler material, resulting in economy. This will be like a regular R.C.C structure, made of concrete mix 1:2:4 and 4th quality Mangalore tiles or any other material which serves as a light weight filler. While casting slab, two tiles facing each other are placed between reinforced, in 30 cm center to center in short span and 45 cm center to center in long span. While filling concrete mix, the tile can be shown exposed. It looks attractive with out plastering.

This Technology can be used for multistoried buildings and slope-roofs. The advantages are: 1. Required lesser steel, cement and aggregates 2. It works as good thermal insulators 3. Saving in the range of 15% to 25%.

#### 2. Compressed Earth Block:

The compressed earth blocks made locally available sandy soil. The ideal composition is Sand – 50% Clay – 20% Gravel -15% Silt 15% and stabilization add cement/ lime 5% by weight. CEB is the best substitute for the burnt bricks as its having better thermal insulation, as well as more compressive strength than country bricks. Other advantages are low energy consumption since, burning is not required and thus lesser pollution. Moreover, it can be made at site by manual pressing machine. Mechanized machine will give better quality (look and strength) and more production.

Green Health Home at Vivekananda Puram functioned for 8 days and treated 398 patients.

Free Medical camp by Vivekananda Kendra – NARDEP was held at ShivaSubramaniapuram on the first of this month, 220 persons attended this camp and benefited, The resource persons were: Dr.V.Ganapathy, Vai. Muthuswami, Vai.Paul Asan and Dr.Guna Yujin.



## Water and Sanitation

**Towards Water Democracy** VK-nardep along with Commune di pistoia and Water Right Foundation, Italy conducted the following workshops:

**For school children** was conducted at Palliah Marthdam Hr.Sec.School, Avaraikulam, Tirunelveli Dist., on 1<sup>st</sup>. 80 students attended the workshop.

**For school children** was conducted at Govt. High School, **Mahadhapuram** on 11<sup>th</sup>. 90 school students attended this.

**For school children** was conducted at Govt. Hr.Sec. School, **Ottaiyalvillai** on 11<sup>th</sup>. 80 school students attended

**For school children** was conducted at Govt. Hr.Sec. School, **Variyoore** on 11<sup>th</sup>. 100 school students attended

**For school children** was conducted at Govt. Hr.Sec. School, **Pottayady** on 16<sup>th</sup>. 105 school students attended

**For school children** was conducted at Govt. Hr.Sec. School, **Kulasekharapura** on 16<sup>th</sup>. 105 school students attended

**For school children** was conducted at Govt. Hr.Sec. School, **Ramapuram** on 16<sup>th</sup>. 100 school students attended

**Resource persons:** Sis. Saraswathi, Sri. Raghupathi and Smt. Rajam



There is something obscure which is complete before heaven and earth arose;  
tranquil, quiet, standing alone without change,  
moving around without peril. It could be the Mother of everything.  
I don't know its name, and call it Tao. - *Tao Te Ching*



### Training Programme on Shakthi Surabhi in progress at TRC of VK-NARDEP



### Two pioneers of Organic farming in South India (Sri.Gomathi Nayagam and Antony Swami sharing their experiences with farmers at TRC of VK-NARDEP: Done with DST core support



### A question answer session : 'Towards Water Democracy' for rural school students

### Poster presentation at 'Towards Water democracy' session for rural school children.



## This month... Networking



On 26<sup>th</sup> March, 15 Farmers visited our Technology Resource Center, It was sponsored by Krishi Bhavan, (Agriculture Department) Thodiyoor, Kollam Dist., Kerala. Dr.Kamalasanan Pillai was the resource person,

One year village development programme was executed for Kozhikottupothai and Aathalavilai (sponsored by NABARD, Chennai)



Networking activities here have been done with DST core support



**What is Biogas? How to install and maintain a Biogas plant? What are the practices for optimum biogas utilization? From the point of view of both an end-user and technician this manual has been written. For copies contact the Secretary  
Vivekananda Kendra-NARDEP  
Vivekananda Kendra, Kanyakumari-629702**



*Let your mind wander in simplicity, blend your spirit with the vastness, follow along with things the way they are, and make no room for personal views-then the world will be governed....Chuang-tzu*



**Dr.Kamalasanan Pillai explaining sustainable farming technologies to farmers from Kerala who were visiting the Technology Resource Centre for exposure visit.**



### **Happenings: This month for Sustainable Agriculture**

A student of TATA Institute of Social Sciences, Mumbai (Shri.Akhilesh Kumar) did Project Work on "Azolla as a Cattle feed" at Technology Resource Center, Kalluvillai from 8<sup>th</sup> to 11<sup>th</sup>.

Out station training on Sustainable Agriculture was done by Govt. Agricultural Dept. ATMA Project, Aramula, Kerala, at Vivekandapuram on 9<sup>th</sup>. 15 farmers attended this. The resource person is Dr.P.Kamalasanan Pillai.

Workshop on "Sustainable Agriculture" was organized at Technology Resource Center, Kalluvillai. It was held on 19<sup>th</sup>. 45 persons benefitted. Resource persons were; Dr.P.Kamalasanan Pillai, Shri.Chakra Pani, MCRC, Tharamani, Chennai, Dr.P.Hemalatha, Floriculture Research Station, Thovalai and others. The programme was sponsored by the Department of Science and Technology, New Delhi

Intensive Training Workshop on "Azolla Cultivation" was held at TRC for 2 farmers on 26<sup>th</sup> March by Dr.Kamalasanan Pillai

### **Renewable Energy This Month...**



Shri.V.Ramakrishnan gave a talk on "Bio-methanation plant" at the National Symposium on Green, Clean and Sustainable Energy held at St.Xavier's College, Palayamkottai on 11<sup>th</sup> March 2011. 200 students attended the event.

Training programme on Shakti Surabhi Bio-methanation plant was held under (RIF) NABARD, Chennai. It was held at TRC, Kalluvilai on 26<sup>th</sup>. 23 persons attended and the resource person was Shri.V.Ramakrishnan

### **Water and Sanitation ...**



Tested water from 14 wells in Kanyakumari Dist – programme of Central Ground Water Board, Chennai

### **'Green Health Camp': Women beneficiaries attending the medical camp**

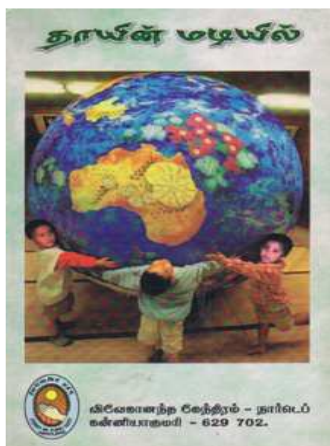
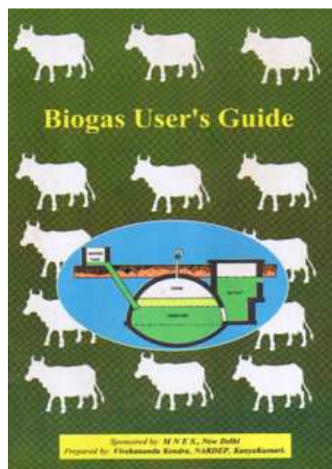


### **Free-medical camp 'Green Health camp': Beneficiaries registering themselves: Shiva Subramaniapuram**

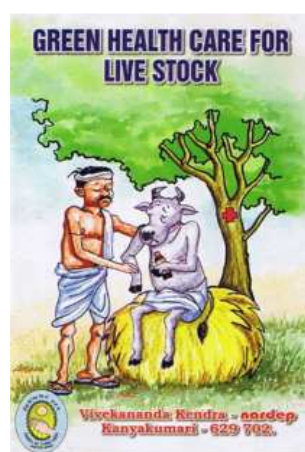
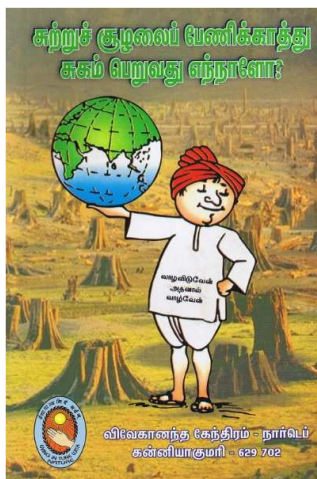
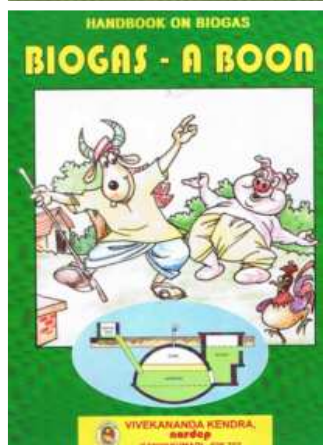




*"Things derive their being and nature by mutual dependence and are nothing in themselves".*  
– Nagarjuna



- All differences in this world are of degree, and not of kind, because oneness is the secret of everything.
- "Comfort" is no test of truth; on the contrary, truth is often far from being "comfortable."
- All truth is eternal. Truth is nobody's property; no race, no individual can lay any exclusive claim to it. Truth is the nature of all souls.



How Shakthi Surabhi tackles the waste-disposal problem in a multi-faceted way:

Alternative fuel for cooking gas

Waste disposal - very good for bio degradable waste management system

Hygienic - no odor and flies

Arrests green house gas

Digested outlet slurry is good as organic manure

How to feed the future humanity?  
How to make development sustainable?  
Some of the best publications on the subject for layman and professionals alike are from VK-nardep.

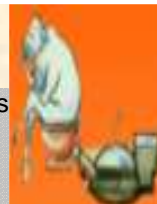
Contact: The Secretary, Vivekananda Kendra-NARDEP  
Vivekananda Kendra, Kanyakumari-629702  
Tamil Nadu

Phone: 04652-246296 Email: vknardep@gmail.com



## This month... Shakthi Surabhi

11 Shakti Surabhi plants were commissioned this month under RIF scheme of NABARD, Chennai



All love is expansion, all selfishness is contraction. Love is therefore the only law of life. He who loves lives, he who is selfish is dying. Therefore love for love's sake, because it is law of life, just as you breathe to live.

– Swami Vivekananda

***"A man may conquer a million men in battle but one who conquers himself is, indeed, the greatest of conquerors.--Buddha***



## From Our Publications



Rural India faces a grave shortage of green fodder. The deficit is compensated by feed concentrate. The prices of concentrate are increasing day by day. The non-availability of protein rich raw materials forces the manufacturers to mix chemical protein supplements like urea which affect the health of cattle and the 'quality of Dairy products. So what is the way out?

Azolla the wonder fern provides the way out for the marginal livestock farmers. Though Azolla has been well known as a bio-fertilizer for decades, its use as a bio-feed for cattle and poultry is an innovation. Azolla combines the quality of concentrate feed and fodder both. Further Dr. Kamalasannan Pillai of VK-nardep has further innovated a method for backyard cultivation of this wonder fern. A farmer can produce with wastewater cowdung

and little mineral. He can harvest every day and feed dry to livestock to get the result on the very next day.

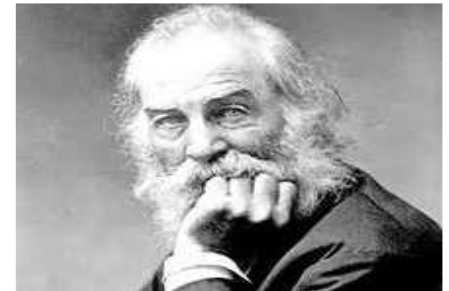
The book provides detailed photo-plates of the nardep method of Azolla cultivation. It also gives the diagrams of various methods of integration of this technology with the farmer's homestead. The book also provides an evolutionary history of Azolla and future possibilities of the Azolla usage which cover a wide spectrum of uses. Different trials with cattle and livestock are also given in easy to understand tabular forms. The book also gives agronomical practices to be followed in using Azolla in the paddy field. The book has fourteen chapters including user feedback from different sections of the society.

In his preface to the book eminent scientist Dr.M.S.Swaminathan comments thus: "This publication provides valuable information on Azolla as a bio-feed for livestock and bio-fertilizer for paddy. Practical guidelines are given on how to grow and use Azolla for different purposes. The data on the use of Azolla for improving milk production are impressive....The authors have also brought out the potential value of Azolla for astronauts in order to provide them with the necessary nutrition while in space. Thus the blessings of Azolla are many and varied."

A better summing up of the contents of the book cannot be done. The book is authored by the head of VK-NARDEP research team and scientist Dr.P.Kamalasannan Pillai who innovated the cost-effective backyard Azolla technology.

**The Wonder Fern Azolla**  
**Pages: 64 Price: Rs 70/-(subject to change) Secretary VK-NARDEP**  
**Kanvakumari -629 702**

## Leaves of Grass



A vast similitude interlocks all,  
 All spheres, grown, ungrown, small,  
 large, suns, moons, planets, comets,  
 asteroids,  
 All distances, however wide,  
 All distances of time - all inanimate  
 forms,  
 All Souls - all living bodies, though  
 they be ever so different, or in different  
 worlds,  
 All gaseous, watery, vegetable, mineral  
 processes - the fishes, the brutes,  
 All men and women - me also,  
 All nations, colors, barbarisms,  
 civilizations, languages,  
 All identities that have existed, or may  
 exist, on this globe or any globe,  
 All lives and deaths - all of past,  
 present and future,  
 This vast similitude spans them, and  
 always has spanned, and shall forever  
 span them, and compactly hold them.



**Visit Us at Cape**



*If we look at the world...with the eyes of the spirit we shall discover that the simplest material object...is a symbol, a glyph of a higher reality and a deeper relationship of universal and individual forces.*

– Lama Anagarika Govinda



### Eye and the Wood

As I was coming here today I considered how to preach to you clearly so that you would understand me properly, and I hit upon an analogy. If you can understand it, you will be able to grasp my meaning and get to the bottom of all that I have ever preached about. The analogy is with my eye and wood. When my eye is open it is an eye: when it is shut it is the same eye; and the wood is neither more nor less by reason of my seeing it. Now mark me well: Suppose my eye, being one and single in itself, falls on the wood with vision, then though each thing stays as it is, yet in the very act of seeing they are so much at one that we can really say 'eye-wood', and the wood is my eye. Now, if the wood were free from matter and wholly immaterial like my eyesight is, then we could truly say that, in the act of seeing, the wood and my eye were of one essence. If this is true for material things, it is all the more true of spiritual.

*Meister Eckhart*

Mystic



### The Way of Tao

Therefore let people hold on to these:  
Manifest plainness,  
Embrace simplicity,  
Reduce selfishness,  
Have few desires. He who hoards most will lose heavily,  
He who is contented suffers no disgrace.  
There is no calamity greater than lavish desires.  
There is no greater guilt than discontentment.  
And there is no greater disaster than greed.  
He who is contented with contentment is always contented.  
The courts are exceedingly splendid, while the fields are exceedingly weedy, and the granaries are exceedingly empty.  
Elegant clothes are worn, sharp weapons are carried, Foods and drinks are enjoyed beyond limit,  
And wealth and treasures are accumulated in excess.  
This is robbery and extravagance.  
This is indeed not the Tao.

– Lao Tzu

Chinese Master



### Metaphysics of the Sacred

And this is essential: metaphysical knowledge requires intellectual, psychic and moral assimilation; discernment requires concentration, contemplation and union. Therefore metaphysical theory is not a philosophy in the modern sense of the word; it is essentially sacred. The sense of the sacred is an indispensable qualification for metaphysical realization, as it is for every spiritual way. For the Red Indian, as also for the Hindu, everything in nature is sacred; this, modern man has to learn, because it is a question of ecology in the broadest sense of the word. What is needed first, is prayer; and then: back to Nature! One could object that it is too late; now, each person is responsible for what he or she does - not for what others do -- because each one stands before God and can do what is requested for his immortal soul. The first step back to Nature is dignity; dignity of forms and of behavior; this creates the climate in which prayers feel at home, because dignity partakes of the immutable Truth.

*Fritjof Schuon*

philosopher

