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## **A Short Report on the Evolution of Permaculture in India (With Reference to Andhra Pradesh)**

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*[Submitted Paper]*

“Man’s first and most unquestionable duty is to participate in the struggle with Nature, to support his own life and that of others ... to feed, clothe and take care of himself and those near to him, satisfies his physical needs, while to help others do the same satisfies his spiritual needs.”

Leo Tolstoy

“He is a wise man who grows two blades of grass where one was growing.”

Dr. Samuel Johnson

“We never can be, but by ourselves, undone.”

Savage

“The only ethical decision is to take responsibility for our own existence and that of our children. Make it now.”

Bill Mollison

Deccan Development Society (DDS), Hyderabad, AP, pioneered the introduction of permaculture in India. It organised the first one-day workshop on permaculture in India, at Hyderabad in December, 1986, which was conducted by Bill Mollison and assisted by Robyn Francis and Reny Slay. Twenty-five participants drawn from various organisations and governmental agencies attended it. This was indeed a historical event, for, the DDS announced its decision to invite Bill Mollison to conduct the first Permaculture Design Certificate Course – the full three-week course, some time in early 1987.

The first PDC course was organised by the DDS at the Central University of Hyderabad during July, 1987. Bill Mollison, assisted by Robyn Francis conducted it. Thirty participants from organisations all over India and Nepal attended it.

During the above course, the DDS announced its decision to establish a permaculture demonstration farm on its 3.25 acre property at Pasthapur in its Project Area of Zaheerabad Taluq, District Medak, Andhra Pradesh, India. This lies in the semi-arid zone prone to droughts. Hence its relevance of applied permaculture to dryland farming, which is the dominant pattern in India.

The last three days of the workshops were spent on this bare piece of land with the hope of the participants that they will have a foot-hold for permaculture in the country.

After the certificate course, in the monsoon of 1987, the Permaculture Demonstration Farm at Pasthapur was designed on permaculture principles and work on it commenced.

The strategy was to evolve it into a self-sufficient farm for a small family of five persons, to provide maximum food/fuel/fodder. More important was to demonstrate various FUNCTIONS pertaining to growing soil, harvesting rain water, arresting soil erosion, the role of trees, windbreaks, legume species and a POLYCULTURAL pattern of food crops and horticultural species.

It was borne in mind that replication of the farm was not possible on farmers' own lands. However, the demonstration of above functions fulfilling needs for Earth Care was the important role of the farm.

Over the years the Pasthapur farm continues the above role for regeneration of degraded and eroded soils for evolution of farm lands for sustainable systems of production for 'subsistence farming' to ensure as much food security as possible.

After having succeeded in harvesting very good yields – comparable to and often better than conventional yields – of locally needed and traditional food crops, this farm has now been converted into a SEED FARM for the availability of needed seeds for extension of permaculture on to farmers' own lands in the region.

In November of 1989, a three day workshop on permaculture was conducted by Bill Mollison at Ghatkesar, near Hyderabad and was attended by more than thirty participants from all over, with visits to the Pasthapur Farm.

The Permaculture Association of India was formally formed in November, 1989.

A National Conference on permaculture was held on the 15th to 19th November, 1990 at Hyderabad with Robyn Francis as the Chief Guest. More than sixty-five participants from all over the country attended.

The second PDC course was organised by the Centre for Education and Development (CED) of Bombay and held at Penukonda, Andhra Pradesh in 1990 and conducted by Robyn Francis and Venkat. More than forty-five participants attended, with a three-day stay on the Pasthapur Farm.

In October, 1990, the first Indian edition of Bill's *Permaculture Designers' Manual* was brought out jointly by the DDS and Permaculture Association. It was funded by Misereor of Germany, Action for World Solidarity and some others. The run was of 2,000 copies. All the PD Certificate holders and graduates were supplied with a

free copy. Many organisations were also provided complimentary copies and a large number was sold to various Government Agriculture Departments. It is out of print, now.

The Permaculture Association has been conducting short practice-oriented workshops (non-certificate) in Orissa, Kerala, Karnataka and in the Project Area of the DDS. It also has a wide correspondence network.

(An Important Note Here): It should be borne in mind that in Auroville, quite a few workshops and certificate courses have been held over the past few years. Permaculturists of Auroville have been undertaking permaculture projects on various farm lands in Tamil Nadu and elsewhere. There is a need to collect all this information and pool experiences and share resources.

## **Permaculture extension in Andhra Pradesh**

The DDS runs many Balwadis (schools for non-school-going children of young age groups) and these children are provided a free, nutritious meal. Many of the Balwadis have endowed agricultural lands. On all these, basic soil/water conservation earth works have been completed, leguminous and horticultural species have been planted and are being cared for by some of the parents. The strategy for these lands is to produce food and fuel for the kitchens of the Balwadis.

There is a Green School in Machnoor Village in the project area, started and managed by the DDS. It has about seven acres of land on its campus, lying fallow, degraded and highly prone to erosion. This land has been designed on permaculture principles.

All the children and the staff are involved in the implementation of the design by practical participation and exposure to some aspects of permaculture. Highly efficient soil/water conservation works like trenches and bunds on contour, gully pluggings, diversion channels, and farm ponds have been completed and are functioning well. This land is getting greener and has already started providing some yields.

We have been struggling to evolve a regular permaculture curriculum as a regular subject for the students, but so far, not satisfactorily.

Another very significant extension occurred between January '93 and June '94. During this period, a micro-project for soil conservation and water harvesting was undertaken, funded by the WWF, Switzerland. A rough idea of the physical side of this project can be gauged by the following data:

- Total area of farm lands covered is 138.5 acres
- Number of villages covered is 12
- Total length of graded and contour bunds and trenches is 16,161 metres
- Total volumetric excavation is 11,590 cubic metres
- 1 large checkdam, 2 farm ponds, 14 gully pluggings, 1 diversion channel, etc., are completed
- All the bunds etc. have been consolidated by seeding and planting

During the execution of the above works, a workshop was held attended by 67 farmers, men and women, drawn from 27 villages. Topics discussed in this workshop were:

- Categories of water.
- Sheet erosion.
- Alarming lowering of the ground water table and the need to harvest all rain water into the soil itself.
- Land use and cropping patterns for subsistence farming to ensure greater food security.

The fall-out of this project has been:

- A qualitative and conscious designing of farmlands by micro-watersheds and creation of assets of natural resources like soil and water;
- Participation of a large number of local men and women farmers in the execution of earth works;
- Evolution of a local cadre of men/women trained in earth works and who are continuing the use of this skill on their own lands and at various other places, especially in regenerating wastelands under various projects.
- Very palpable and visual effects of soil regeneration on these lands in the first season itself.

### **Participation in local environmental issues: a need**

“Provision for people to access those resources necessary to their existence” (Bill Mollison), is a fundamental ethic and approach of permaculture. Most of these resources form part of the immediate environment. And these resources are being denied to people and more often they are being used destructively, further degrading other resources.

One of the many local problems in Andhra Pradesh is the commercial cultivation of cotton with one of the highest consumption of chemicals and excessive ground-water utilisation. In the cotton growing districts, this has resulted in once-fertile lands being converted into deserts, inevitably, in its wake, ruining small farmers and forcing wealthier farmers to migrate to other areas either to purchase or take on lease, lands of small/marginal farmers to continue the ruinous cultivation of the cash crop. This is an issue in our area. An awareness campaign on this subject was conducted, and culminated in an upsurge whereby some local farmers have decided not to extend the lease of their lands.

This problem (as an example; there are many others) and the response of the farmers, is pregnant with rich potential and is now veering round on the crucial question of ethical land-use patterns for food production for subsistence, rather than cash cropping for the market. Since patiently working for food security at local levels is an urgent need, such opportunities have to be beneficially utilised.

Various issues like water resources, common property, polluting industries, village forests, etc., are getting aggravated with the globalisation of the market. Participation in all these will be necessary and we are getting prepared for this.

### **Thinking about the future and themes on which the permaculture association has to endeavor**

1. Dryland farming is the dominant pattern. Nearly 60% of this is being done by small and marginal farmers, with very minimal or no resources of their own at their disposal except their own labour.

The task before us is to enable them to work out suitable and acceptable practices on their lands in conformity with their traditional and cultural needs, to ensure food security at the farm and local levels on a sustainable and permanent foundation.

2. To enable them to access needed resources, from wherever available, especially information resources, skills, seeds/plants, and fraternal linkages and bonds of solidarity for sharing and exchange.
3. To widen and broad-base permaculture resources in a non-structural framework.
4. To bring out simple, small publications in local languages on all aspects of building sustainable systems for food, energy, shelter, etc.
5. To undertake training at various levels and form 'small core groups' for extension and provide for them at least for three years.
6. To bear in mind to continue the practical work, at ground level, however small and localised it might be. (Suggestions are earnestly solicited)

*Presented by the Permaculture Association of India and the Deccan Development Society (DDS) of Andhra Pradesh, India.*