

Kambalwadi – Transformation of a Village

1. Background

Prakruti organised a visit (yatra) of participants (yatris) to Kambalwadi and other voluntary organisations from 24 to 27 June 2005. This report presents the observations and responses of the Yatris on what they saw during the Yatra to Kambalwadi and voluntary organisations that helped Kambalwadi residents to make their village a model village and the Gram Gaurav Pratishthan, Raje Shahu Ashram Shala and Kolhapur Town Hall Botanical Garden visited during the Yatra.

PRAKRUTI is a public trust and registered society of members agitating for the establishment of an environmentally viable society based on natural living and sustainable agriculture. Natural living means leading a life style that is not exploitative of the natural resources ensuring equal access to all living beings to the natural resources of the earth. Prakruti promotes sustainable living and sustainable agriculture since its inception in 1988.

Prakruti workers came across an announcement on the documentary film 'Wonders of Kambalwadi' made by the reputed documentary film maker, Rajiv Shah hence requested Rajiv to screen the film to an invited audience.

The film portraying the social and cultural transformation brought about in Kambalwadi through perseverant efforts of residents themselves was highly appreciated. Viewers decided to visit Kambalwadi to see and appreciate the change brought about and at the same time to visit Maharashtra's voluntary organisations that extended helping hand to Kambalwadi residents in achieving high level of sustainable development. Rajiv agreed to conduct the Yatra.

In response to Prakruti's call, nine persons representing various organisations of Mumbai and eight farmers from Niphad Taluka of Nashik District participated.

The Yatra commenced from Mumbai and Vinsure village located in Nashik District in different vehicles in the morning of Friday 24 June and ended in late night on Monday 27 June 2005. Two groups joined near Kamshet on old Mumbai Pune Road and remained together throughout thereafter.

2. Progress in Kambalwadi Village

Kambalwadi Village is in the Radhanagari Taluka of Kolhapur District of Maharashtra. The population is 1,003 persons (Census of India 2001) staying in 200 plus households.

Kambalwadi gets its water supply from the perennial river Bhogavati on which the Radhanagari Dam is constructed. Sugarcane, a cash crop having a long gestation period of approximately 12 months, is the main crop. Rice, the second water guzzling crop cultivated, does not require much attention after transplantation. Sugarcane and rice cultivation leave to farmers a lot of time for idling. Availability of plenty of water adds to the lethargy of farmers. This created a situation of 'empty minds becoming devil's workshop.' Kambalwadi had degenerated into a village where alcoholism became the way of life for the men folk. Internal squabbles and fights were the rule of the day causing in built up tensions and wasteful litigation's. This was the situation four years ago.

Transformation of Kambalwadi from a village rife with alcoholism and internal disputes to a model village which has earned national accolades is an eloquent saga of the sheer determination of residents, more specifically, of women, to cast away destructive practices and to develop a positive approach that improves the quality of life. The Gramsevak, Sagar Sarawane and the Kolhapur based voluntary organization, Nisarg Mitra presented an environmentally sustainable and socially acceptable alternative for coming out of the hopeless condition and extended to the residents' much needed support in implementing viable programmes for the ultimate benefit of the community over a period of three years. Many voluntary organisations advised on simple tools and gadgets to harness finite natural resources without affecting the environment.

2.1 Addiction free village

After initially banning the consumption of alcohol in all forms, residents have subsequently banished coca-cola, pepsi-cola as well as soft aerated drinks of all sorts. Consumption of tobacco in any form is not allowed.

2.2 Unity among residents

Instilled with the pride that goes with the adoption of Kambalwadi as '*MAAZA GAON*' (my village), residents have developed a common programme and participate in the activities taken up for the betterment of their '*gaon*' (village). For executing common programmes, residents resort to '*Shramdan*' (self-help). They use Sunday for cleaning of village roads, gutters and public places.

Internal disputes are settled out of court. Residents have withdrawn all cases pending before adjudicating authorities and settled them amicably. This one decision, very unusual in the present day strife-ridden situation, has brought about greater amity. As a sign of their unity, all residents have painted their homes in one uniform colour. Pink.

2.3 Empowerment of women

Residents realised, in the early stages of their march towards total change, that women, constituting 50% of the community, only can mould the heterogeneous groups into a model coherent community where peace and mutual respect for all as well as special care for the needy prevail. As a first step towards empowering women, residents have transferred the ownership of their respective houses to the 'lady of the house'. She is now the *Gruh Lakshmi* in the true sense of the country's long traditions. Residents have thus placed full faith in the capability of women to do everything for safeguarding the interests of future generations.

Women are placed in charge of the *Gram Sabha* (village council). They form the majority in the *Gram Sabha* with Mrs. Bharti Krishnaji Redekar as the *Sarpanch* (mayor). Bharti encourages all women to attend the meetings held on every Sunday and to actively participate in taking appropriate decisions for the benefit of the community.

Sunday is the day of meetings when men and women meet in separate meetings to decide on issues relating to the village and its residents. *Sarpanch* escorting the *yatris* offered to take *yatris* to the meetings of men and women to watch the working of the Sunday meetings. *Yatris* were first led to men's meeting in a largish room swarming with men. Menfolk squeezed further to make room for *Yatris* to wade through to the prime corner. They were given a strategic place from where they could watch the proceedings.

The meeting was in session and the Gramsevak was guiding residents in carrying on deliberations. All participants were listening with attention to the speaker and thereby helping the emergence of positive decisions. A few *Yatris* subsequently attended the women's meeting where *yatri* Ms. Priya conveyed the feeling of satisfaction on the involvement of women in making Kambalwadi a model village.

Only after a matter has been accepted in women and men meetings by consensus, it is placed in the Gram Sabha for formal approval and for timely execution. The role played by the Gramsevak in this decision making process is crucial. Sagar Sarawane, the present Gramsevak, has proved to be the right person in the right place. He is fully conversant on issues involved and guides residents in taking appropriate decisions. He is endowed with the rare capacity to communicate effectively with residents. This practice of ensuring involvement of residents at various stages of decision making makes quick execution a foregone conclusion.

Here could the *yatris* observe a perfect working of direct democracy ideally eulogised as 'of the people, by the people and for the people'. This was to the *Yatris* a refreshing experience that is in contrast to the situation where the so called democracy has been turned into an oligarchy of the rich and the powerful used for strangulating the common men.

On being requested to speak, Kisanbhai (Mr. Kisen Meat) expressed the happiness of the *yatris* on the high level cleanliness in Kambalwadi which reflects the self-discipline developed by one and all. He stated that one cannot achieve this level without the unstinted support and active participation of all. We see in Kambalwadi the vision of

Mahatma Gandhi of an ideal village for which Acharya Vinoba Bhave and Lokanayak Jayaprakash Narayan endeavoured to provide articulating form. This is the transformation (*parivartan*) that our people need all over the country. Kambalwadi provides a living example of what a community can achieve when all residents are united and women are placed at the helm and are empowered to take charge of the human settlements and their inhabitants. A progressive community where women are accorded the highest respect would always be in the forefront promoting peace and tranquility amongst people. Kisanbhai congratulated each and every resident for giving form and content to the dream of Gandhiji.

He taunted to Krishnaji who had proudly spoken of Kambalwadi as '*Maaza Gaon*' that Kambalwadi is not his '*gaon*' only. Kambalwadi is the '*gaon*' that every human being would be proud to own as '*maaza gaon*'. On behalf of all *yatris* he wished to residents god speed in their efforts to reach greater heights.

He subsequently congratulated Bhartibai for the affection and care she shows to the entire village as *Sarpanch*, literally the *Gram Mata* (village mother) of Kambalwadi. Soft spoken Bhartibai retorted "Kolhapur District is served by flowing rivers descending from the Sahyadris. The district has enough water. But many parts of Maharashtra are suffering from water shortage as Mumbai and other cities take away water. Can I request you to tell Mumbai residents to draw less water by reducing wastage in cities. Water is required more in farms for growing food for all human beings.' How inspiring! Do urbanites understand this universal truth?

2.4 Sustainable Agriculture

Organic farming has been adopted to make agriculture sustaining. In addition to application of farmyard manure to farms, household waste comprising of produce of the soil is ploughed back to the land for improving the fertility of the soil.

Every household segregates solid waste generated into recyclable and biodegradable components and deposits in two separate bins for the two components to be treated in the appropriate manner. Recyclable component is reused or diverted to market for recycling.

Biodegradable component is turned into soil conditioner by applying vermi-processing and the resulting soil conditioner is applied to farms thus returning to the soil that the soil has gifted to the living beings for their sustenance. Households having soil conditioner in excess of their needs deposit the extra quantity with the Gram Panchayat for use by farmers not having adequate manure for their cultivation confirming that finite natural resources belong to all and should be made available to those needing more urgently.

After cremation of dead bodies, ashes are collected and dispersed in farms to improve the soil quality.

Environment friendly decisions implemented by residents keep the village sparkingly

clean. Practically all households now have constructed their own toilet and washing facilities. Residents having animals have installed biogas plants for generating fuel and thus reduce dependency on fossil fuel.

Residents have consciously decided to have a single *Sarvajanik Ganeshotsava* for the entire village and thereby avoid waste and contamination of natural resources.

Practices like slaughtering of animals for food and serving of alcohol on the occasion of village fairs have been abandoned. Instead vegetarian meal is served and money thus saved is utilised for public welfare.

Kambalwadi presents a picture of a satisfied self-confident and self reliant community endowed with high values in life and anxious to lead a sagacious life that protects the environment and conserves finite natural resources. We need to have more and more human settlements to develop a society that ensures peace and prosperity to all.

Contact Details:

Address: Post Kambalwadi, Taluka Radhanagari, District Kolhapur Maharashtra

Contact Persons:

Smt. Bharti Krishnaji Redekar- Sarpanch

Shri Sagar Sarawane- Gram Sevak

Phone : Sagar Sarawane 9890917160/02321 235103

Vilas Patil: 02321 233072

How to reach from Kolhapur : Kambalwadi is 35 km from Kolhapur . Take Radhanagari Road from Kolhapur . Turn right at Dhamod village. Kambalwadi is 15 Km from Dhamod village.

3. Nisarg Mitra

Nisarg Mitra chalked out the total programme for the improvement of Kambalwadi and helped residents to realise the object of becoming the model village and to develop a nursery of health giving plants for supporting alternative healthcare systems.

Nisarg Mitra is a voluntary society registered under Indian Societies Act in 1982. It has been involved in issues of environment protection and natural resource conservation in the Western Maharashtra. Prof. (Dr.) Madhukar Bachulkar, well known Botanist and Taxonomist is the President and Shri Anil Chowgule is the Hon. Secretary.

In collaboration with other voluntary organizations, Nisarg Mitra works amongst rural people for developing self-confidence and rural uplift. Nisarg Mitra agitates for the environmental protection in the Western Maharashtra. It has recently been instrumental in stopping illegal mining of Bauxite and destruction of forest in the Sahyadris.

In an interactive meeting with *yatris*, Dr Bachulkar and his colleagues explained as to how they motivate villagers to cast off ‘andha shraddha’ (blind faith) as well as to take up programmes for citizen awareness on aforestation and other environmental issues.

Contact Details :

Address : C/o Janaswasthya Dakshata Samiti, Gulmohar Society,
Paanch Bungalows, 1108/E, Bhaskarrao Jadhav Chowk,
Shahupuri, Kolhapur , Maharashtra

Contact Persons: Prof. (Dr) Madhukar Bachulkar Tel:0231 2662096
Shri Anil Chowgule Tel: 0231 2644757

4. Adhunik Urja Park

Increasing population and depleting reserves of oil, wood and coal are hurdles to balanced development. Power from fossil fuel is denied to rural areas. Villagers have to fall on wood and coal, the use of which depletes precious forest and mineral resources. Erratic electric supply from centralised power grid cannot be relied upon for carrying out farming operations.

Stung by a disarming question from his mother as to what is the use of his engineering knowledge if he cannot get water to villagers even though it is flowing away in the river 50 feet below, young engineer, Chandrakant Pathak decided to develop tools and gadgets that do not need centralised grid electric supply for reducing the drudgery of the rural poor. While engaged in disaster management work in Sangameshwar in 1983, Chandrakant could see that nothing but a manually operated pump can bring water for the thirsty people.

He noticed, by sheer coincidence, a ‘*dharwala*’ - a self-employed person who goes from house to house to sharpen knives with the help of a bicycle operated grinding wheel. The observation clicked and he started developing simple devices for use by the community. In next ten years, he perfected a wide range of multi purpose water pumps and other tools working on human and animal power.

His entire life has gone in developing a range of non-motorised tools and gadgets that can be operated with human and animal power thus conserving fossil fuel. The *Adhunik Urja Park* (Modern Energy Park) presents a veritable picture of the potential of what E. M. Schumacher visualised in the Forties and which has since emerged as Intermediate Technology assuring sustainable development. Chandrakant, now in his sixties, states that people’s energy sources are human power, animal power, solar power, bio-gas, hydro power, wind power in that order. He has proved that fossil power, which he terms as exploitative of earth’s capacity to sustain living beings, can safely be kept aside from farming operations for all the time.

Tools and gadgets that he has devised are targeted to help humans to achieve higher self-reliance in life while reducing human drudgery at the same time protecting the environment. He has shown that humans and animals can generate enough power to run up to 5 HP pump making power from fossil sources redundant. Devices are simple to produce and operate as well as are easy to maintain. They serve the community properly in addition to creating jobs everywhere and more specifically in rural areas. His tools and devices have the following in built benefits:

- Sustainable, as energy is generated by human and animal power
- Affordable capital and recurring cost
- Liberation from electricity and fuel
- Generates employment for youths
- Helps in maintaining the ecological balance, non-polluting
- Create enjoyable and conducive work conditions promoting health

Gadgets developed at Adhunik Urja Park

Information on a few of the tools developed at the Park. All the tools and gadgets are human and/or animal powered.

a. Vanarai Water Pump – Bicycle Frame

Suction: 5 Mtrs.

Delivery head: 7 Mtrs.

Discharge Capacity: 40 litres per minute.

It has various uses like spraying on construction work, small fire, waste land development work. Cleaning of cattle and Cattle shed and recharging of bore well.

b. Single Piston Spray Pump

Suction: 7 meters

Discharge capacity: 15 litres per minute

By simple paddling one can spray pesticides, water and other medicines up to 10 Meter height and upto 50 Meters horizontal spread. Mainly used in sugarcane and horticulture plantation.

c. Bullock Cart Jaldhara Spray Pump

For spraying pesticides on horticulture plants like Grapes, Pomegranate, Orange as well as crops in the fields. Three-piston power spray pump rotate with the help of 'V' belts and Pulleys attached to the bullock cart. One can also attach battery charging system, small air compressor and other small machines.

d. Sujal Water Filtration System

This simple water filtration system can be attached to Vanarai bicycle water pump. A PVC pipe filled with fine sand and activated carbon and bactericidal resin reduces the percentage of bacteria and viruses. Capacity to clean water 30 litres.

e. Bullock Driven Modern Energy Machine

By installing the machine at a central location and rotating it with the help of one or two bullocks would generate 2 KVA electricity sufficient to run a 3 HP centrifugal water pump, Air compressor and other small machines. It generates upto 1 HP of energy.

f. Water Powered Water Lifting Machine

Suitable for lifting flowing water of rivers, canals, waterfalls etc. Machine to be installed with the help of wire or nylon rope. Rotating turbine wheel energises the attached water pump to lift water up to 20 Meter height.

g. Vegetable Cutter

The Cutter cuts upto one Kg of onion and other vegetables like cabbage in one minute. Mainly patronised by canteens, eating houses etc, this gadget can generate employment for women.

h. Bicycle Winnowing Machine

Paddling a cycle generates energy. One can separate light husk, small stones and soil from foodgrains. By changing different screens it can also be used as a grader.

Contact details:

Address: Gat No. 104, Kanhe, Taluka - Wadgaon Maval, District- Pune, Maharashtra.

Contact Person: Shri Chandrakant Pathak Tel: 02114 255113 and 020 24452620

Email: info@moderntechicalcentre.com

Website: www.moderntechicalcentre.com

How to Reach: Take the old Mumbai - Pune Road between Lonavla and Pune. 28 km from Lonavla side near Kanhe Phata, the Park is near the Poonam Petrol Pump and the Phata.

5. Vigyan Ashram

Vigyan Ashram provides formal and informal vocational education to the underprivileged and school dropouts and has developed simple gadgets.

A scientist turned educationalist late Dr. S. S. Kalbag started Vigyan Ashram in 1983 to provide training to rural youth enabling them to take up activities in their villages and thus curb migration to cities. Students come from different regions of the country for training hoping to start activities in their regions. Vigyan Ashram has developed several innovative technologies and successfully implemented them for the benefit of local population. The emphasis is on 'Learning while doing' in real life situations.

Vigyan Ashram has a mechanical workshop, electrical and rural health laboratories, animal husbandry center, computer laboratory, micro-filtration unit, two hostels for students, accommodation along with well-equipped kitchen in addition to adequate space for conducting innovations in agriculture.

To accelerate the pace and improve the quality of education delivery system, the Ashram has set up information technology facilities in collaboration with prestigious Indian Institute of Technology (IIT) of Mumbai and Massachusetts Institute of Technology (MIT) of U.S.A.

5.1 Formal and non-formal Education for different sections of the society

Rural Development Education System (RDES) is an important innovation developed by Vigyan Ashram. It is observed that a 2 to 3 year old child learns a language by itself but finds it difficult to learn another language even after ten years of formal education.

The reason for this is that the child learns the mother tongue by the Natural System Of Learning, which involves observation, practicing it further and acquiring the skill. Vigyan Ashram found that this method of learning to be more effective. The system of 'Learning while Doing, in real life situation' involves doing community service work in real life as part of education. Education and Development are integrated in the RDES.

Dr. Kalbag who adopted this approach as a program and demonstrated it successfully for over 20 years. The RDES programme is available in both formal and non formal mode.

5.1.1 Formal Education: Introduction to Basic Technology (IBT)

IBT course is conducted in the 14 neighboring schools in which students in 8th, 9th and 10th Std spend one day per week learning the similar curriculum as DBRT. This programme is offered along with the other subjects. Schools conducting this course need to have minimum facilities like engineering workshop, electrical section, agricultural land, poultry, food and health lab etc. Students working, under the guidance of instructor, on machines and power provide services to the community. In short the school is also a production center. The profits of the operation go to instructors.

Instructors, designated as "Trainee Entrepreneur", expected to do business with the help of students using facilities of the school. After the Instructor builds up sufficient confidence, he is encouraged to start his own enterprise under "Trainee Entrepreneurship

Scheme". As per the survey done in the year 2003 around 800 trainee entrepreneurs who received their training at Pabal are successfully managing their businesses. The SSC Board has recognized this course for the final examination.

5.1.2 Non-formal Education: Diploma in Basic Rural Technology (DBRT)

DBRT is a residential course conducted for youths from the rural area, recognized by the National Institute of Open Schooling (NIOS). Students attending this course work in each of Engineering, Energy, Agriculture, Animal husbandry and Home/Health sections for 3 months. During this period they are given some project work. Each student is required to earn minimum Rs. 1,000/- by doing various jobs like milking the cow, grinding wheat in floor mill, planting trees, water supply, electrical work etc. Besides vocational skills, they are also given training in costing, budgeting, planning etc.

5.2 Vigyan Ashram also offers the following non-formal vocational courses:

- Short-term courses for women in sewing and knitting.
- Balwadi (kindergarten) for small children (3-6 years of age).
- Mahila Udyog Kendra for training women in making pickles, juices and other eatables. A micro filtration plant set up with the help of NCL for producing bacteria free liquid/fruit juice. This plant makes and preserves lemon juice, pineapple juice and sugar cane juice which can be sold commercially.

5.3 Development of Education System - Interactive (D.E.S-I) Educational Multimedia CD-ROM

Vigyan Ashram, in collaboration with Digital Publishing Solutions has developed Educational Multimedia CD ROM's.

5.3.1 Features of the CDs:

- The CDs are based on philosophy of "Learning While Doing" in which student has to learn by doing things on the computer screen.
- CD ROM courses are available in Marathi, Hindi, Gujarati and English languages.
- Programme records evaluation of the student and give a certificate on successful completion.

5.3.2 Following CD ROM based courses are available:

i) Computer Technician Program: Do not depend on others to keep your computer working. Learn to make, operate and maintain your computer yourself. 8th std student can become computer technician using these CDs. The CD contains complete 70-hrs course on working of the computers.

ii) Basic English Programme: Program developed for Marathi and Gujarati speaking students. Useful for everyone wanting to learn correct English. 40 hrs course.

iii) MS Office Tutor Program: Learn about MS Word, Excel, Power point, Access using this programme

iv) Balwadi: For the age group of 3-10 years. This CS ROM contains exercises to develop critical thinking, logical reasoning, numerical ability, alphabets, colours, relations, forming words etc.

Currently Vigyan Ashram is developing three New CDs Basic Electrical Programme, Basic Engineering Concepts and Basic Chemistry.

5.4 Internet Service: Wireless in Local Loop (WLL) technology

a) Agricultural consultancy: Farmers can ask questions to agricultural experts. This service offered in collaboration with Krishi Vigyan Kendra, Agricultural Dept.

b) Education: Various courses conducted through these kiosks using multimedia CDs are

i) Computer Hardware Course

ii) Ms Office Course

iii) Basic English Course

iv) Balwadi (Kids club)

c) Photo studio: Instant photograph service using web camera is available in selected kiosk.

d) DTP service: Typing and Printing of documents

e) Internet Access: e-mail, web page, net surfing etc.

5.5 Telephone Service

In Rajgurunagar taluka more than 70 villages are remote villages where only one state transport bus goes a day. Some villages are even inaccessible by road.

Vigyan Ashram offered telephonic services to the villagers through WLL, the response was overwhelming. By July 2003, 53 villages had subscribed for the service and STD/PCO booths were installed in each one of them.

5.6 Fabrication Laboratory – Fab Lab

A project by Massachusetts Institute of Technology MIT, USA, for development of Agricultural Instruments and tools which the villagers are able to create themselves.

Centre of Bits and Atoms at MIT has installed a FAB LAB at Vigyan Ashram. FAB LAB is a collection of set of computer operated fabrication tools, which empower the user to create almost anything. Instead of buying commercially made agricultural instruments

and tools villagers can create them at this lab. Instruments that detect ground water and gadgets that give advance warning on milk going sour have been made here.

The basic idea behind FAB LAB is that rather than looking at outsiders for help the village communities should learn to solve their own problems. MIT put together various machines and computer programs, so that the engineers and students at Ashram can provide concrete shapes to their ideas, prototype them and then test them.

Engineers train students at the Ashram in using FAB LAB equipment. DBRT students are asked to work on a project using FAB LAB machines. Students from engineering colleges are encouraged to come and work at the Ashram. Projects can be anything from simply making T-shirt using screen-printing to making PCBs and toys.

Contact Details:

Address: PABAL 412403 Taluka-Shirur, District - Pune, Maharashtra.

Tel: 02138 292326

Contact Person: Shri. Yogesh Kulkarni and Shri. Santanu Inamdar

Cell:09822792078 (Kulkarni)

Email: vashram@vsnl.com

Website: www.vigyanashram.com

How to reach: Vigyan Ashram is located in village Pabal approximately 70 kms from Pune off Pune Ahmednagar Road, between Rajgurunagar and Shirur. Pabal village is in the drought prone region, typical of general conditions prevalent in India.

6. Matrumandir

Matrumandir is a voluntary organization set up by Smt. Indirabai Halbe in 1954 in the memory of her late husband. Absence of education did not deter Indirabai from carrying out her mission of utilising the money saved by her husband for providing relief to humans. She trained herself as a nurse and started a maternity hospital with only two beds in Devrukh, her husband's birthplace. After overcoming the resistance from the higher caste communities, she managed to establish a hospital for villagers where the downtrodden were given equal treatment. Today 7000 to 8000 patients are treated in the hospital annually.

Besides the healthcare field, Matrumandir conducts several activities for improving the quality of life of the people. A few of them are recorded hereunder.

- Residential school for the orphans
- Technical education for the youth
- Crèche & pre-primary schools in remote areas
- Experimental farming
- Watershed Management and soil conservation

- Self Help Groups

Contact Details:

Address: Devrukh 415804, District Ratnagiri, Maharashtra

Tel: 02354 240026 and 241056

Email : rtg_mmdrk@sancharnet.in

Contact Person: Shri. Bhau Narkar

7. Gram Gaurav Pratishthan

The Gram Gaurav Pratishthan (GGP) is a public trust set up by late Shri Vilasrao Salunkhe, an industrialist from Pune. In 1972 Pune district was affected by a severe drought. To provide relief to the suffering villagers, the government extended Employment Guarantees Scheme (EGS) and asked villagers to break large stones into small ones keeping them by the road side. As road construction programme, which can utilise broken stones, was not planned Vilasrao could readily observe that stone cutting alone remained unproductive to the community.

He felt that if the energies of people were utilised on implementing watershed management programmes, relief can come in meeting the scourge of droughts on a long term basis. After discussing this change over with villagers and government officials, he devised rain water harvesting programmes to be implemented by the entire community with benefits to be distributed within the community in proportion to number of persons in a family and not on the basis of the area of land owned by the family.

In order to implement his plan in a systematic manner he sought the help of final year civil engineering students from Pune University . The response was inspiring as students came forward to work side by side with the Irrigation Department of the Maharashtra Government. On the basis of a survey to identify water sources in 25 drought affected villages, students applied water conservation techniques like building percolation tanks and nala bunding, that is creating barricades at lower down the slope to slow down rain water run off. Villagers contributed either by way of 'shramdan' or working under the EGS. The results of these efforts were visible in the following year when rainfall was normal. Within a week all the wells were overflowing with water which was a rare phenomenon for the local people to observe. The GGP volunteers could show to villagers that even with 300-400 mm of rainfall, a catchment area of 80-100 hectares could be brought under watershed management. This can irrigate 5 ha of cultivable land, providing sustainable livelihood to around 15-20 villagers and equal number of farm animals.

Impressed by the results, the Naigaon Grampanchayat leased out 20 ha of land to the GGP where innovative watershed management techniques are adopted for pursuing sustainable farming practices. The GGP has covered the entire catchment area around Naigaon that enables farmers to draw water from a percolation tank located about one km

away. The rise in the water table has considerably improved water supply from traditional sources.

The GGP's success story does not end here as many villages around have implemented the programme in their villages. The GGP extends support in carrying out the programme in other areas where villagers commit to implement the programme in toto on the concept of equity. The GGP helps farmers in setting up local 'Pani Panchayat' in villages implementing watershed management programmes.

7.1 Project "Pani Panchayat"

"Adoption of watershed management practices by an entire community for bringing farmlands of members under irrigation"

Pani Panchayat programme is implemented as per the following GGP guidelines:

- Farmer family shall be treated as a unit for availing the programme.
- Available water shall be distributed in proportion to the number of members in the farmer family and not on the basis of quantum of land owned.
- Farmers shall be allowed to irrigate maximum 0.8 ha of their land under the programme.
- Farmers holding land in excess shall lease excess land to landless families having share in the available water.
- Farmers shall not cultivate water guzzling crops like sugarcane, banana.
- Twenty percent of the budgeted cost shall be deposited by the member in a bank, each member contributing in proportion to his share in the available water. Balance 80% will be taken as a loan from the bank.
- Every farmer family member shall render "Shramdan" if and when required.
- In case, a member farmer sells the land then the land only would be transferable to the buyer while his right to water shall revert to the Pani Panchayat.

Rules laid down by the GGP shall be strictly adhered by village communities. Each member of the community shall confirm in writing that he or she abides by the GGP ideology and guidelines to ensure successful implementation of the watershed management programme.

Mr. Khedekar, who has devoted his entire life for "Pani Panchayat" and a devoted follower of Vilasrao Salunkhe, informed that the GGP programme is being successfully replicated in drought prone areas of Maharashtra such as Yavatmal and Nandurbar.

Contact Details:

Address: Khalad 412301 Taluka Purandar, District Pune, Maharashtra

Contact Person: Shri.Laxman Khedkar Tel: 02115 22577

Email: panipanchayat@vsnl.com

How to reach: The Gram Gaurav Pratishthan (GGP) is located in village Khalad on Pune-Satara Road.

8. Raje Shahu Ashramshala **(Residential School for Nomad children)**

Raje Shahu Ashramshala is a residential school run by Bharatiya Bhatke Wimukta Sanshodhan and Vikas Sanstha, a public trust, for the benefit of nomad children who otherwise are denied formal education due to peculiar migratory lifestyle of the community. The children, girls and boys in the age group of 6 to 15, are admitted so that they have an access to education for living a socially useful and independent life.

In addition to the standard curriculum, students are taught farming. Direct working on the soil prepares students to pursue farming in their life after they leave the school. They grow on the campus vegetables and food items for their own needs.

The campus is designed on the concept of environmental protection and sustainability. For extending the shelf life of vegetables and perishables, an indigenous refrigeration unit not requiring electric supply is set up.

Rain water harvesting to ensure adequate water supply and waste water recycling for watering plants after purifying and filtering the quantity of waste water generated are set up. A biogas plant provides fuel for cooking.

Children seemed energetic, intelligent, disciplined and self-reliant looking after their own needs. Even a five year old beginner looked happy and self confident.

The school premises provide a living example of self-reliance and sustainable development.

Contact Details:

Address: Post Pachgaon 416002, Taluka Karwir, District - Kolhapur, Maharashtra

Contact Person: Shri. Suresh Shirpurkar

How to reach: It is 4 km. from Kolhapur on Kolhapur - Pachgaon road.

9. Kolhapur Town Hall Botanical Garden

The Garden maintained by the Government of India in the Kolhapur Town Hall has a number of well grown endemic trees that are fast vanishing giving place to concrete jungle. Dr Bachulikar, President of Nisarg Mitra conducted the yatris through this garden in the centre of Kolhapur city.

The Report is written and finalised by Priya Salvi and Kisan Mehta with inputs and support from Rajiv Shah, Ojas Parikh, Pralhad Khadangale, Jaishri Parab, Anuradha Bhave, Bharti Vakharia, Nimesh Sumati, Kaustubh Navangul and Yatin Sathawane.

For further information contact:

Kisan Mehta: 92234 48857 Priya Salvi: 93240 27494

PRAKRUTI and Save Bombay Committee

102, MAUSAM, Plot no:285, Vashi

New Mumbai 400705

Email: kisansbc@mtnl.net.in

<http://www.savebombaycommittee.org>
