Inspiring Cases of LEISA India Use

How magazine is being used

For better understanding of alternative agriculture
For teaching and training ecological agriculture
For exploring alternative institutional forms
For developing mass awareness programmes
For modifying field practices/cropping systems
For designing participatory development processes
Our readers are different!

Our readers are not just readers. Many of them are also promoters and practitioners of LEISA. Practitioners seldom share. But, our readers are patient as well as enthusiastic in sharing their experience.

Around 850 readers responded citing specific instances of use of magazine content. Some of them were contacted to seek more details. This product is the result of their inspiration to share patiently and in detail during intensive interactions with T M Radha, Editor, LEISA India. Some of them sent details through emails, some through letters.

We deliberately compiled a few cases indicating diversity of influence – field application; participatory approaches, influencing young minds, transition to LEISA philosophy, exploring new institutional forms and spreading through mass media. Also, we have included narration of experiences by the readers themselves as well as three interviews. Some of them shared their photos too.

We are extremely grateful to our readers for sharing their experiences right from their heart. We earnestly believe, they in turn would inspire many more to promote and practice LEISA.

We are happy that LEISA India is serving as one of their inspirations for promoting and practicing ecological agriculture.
LEISA India is a quarterly magazine aimed towards promoting ecological agriculture through encouraging the adoption of LEISA approaches and technologies. Starting as a supplement to the global LEISA magazine, LEISA India emerged as an independent Indian edition from 1999 onwards. Presently, LEISA India reaches around 12000 subscribers interested in ecological agriculture, within India and a few in the neighbouring South Asian countries (around 250). The primary contributors of articles to the magazine include NGOs, Researchers, Academics and few farmers.

A survey was conducted during the month of February 2009. A one-page questionnaire, simply structured, as well as reasonably open ended, was sent. Survey forms were sent to around 9000 readers. The response was unprecedented. Around 1500 subscribers responded and shared their views.

Presented below is a brief summary of the survey results in terms of

- How the readers are specifically using the magazine
- How they are spreading the message with others
- What features of the magazine are interesting for them
- What aspects they don’t like, as well as suggestions
- Respondent categories and period of their association

Also, included are few inspiring cases.
How is LEISA India being used?

96% of the respondents have reported to have made use of the magazine content. 84% of the respondents have shared specific instances of the content use.

Readers have been using the contents for promoting ecological agricultural practices as well as enabling participatory processes. Primarily, the magazine is reportedly being used for field application (39%); for trainings - training farmers (43%) and training NGOs (25%), for teaching as well as building awareness on alternatives.
It was also interesting to see the **primary use** of the magazine by **various categories of readers**.

<table>
<thead>
<tr>
<th>Category</th>
<th>Primary use</th>
<th>Details</th>
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<tbody>
<tr>
<td>Farmers</td>
<td>Field Application</td>
<td>• 58% respondents are using for field application</td>
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<tr>
<td></td>
<td></td>
<td>• 24% also sharing content with other farmers</td>
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<tr>
<td>NGOs</td>
<td>Training/Teaching</td>
<td>• 58% are using for training farmers</td>
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<td></td>
<td></td>
<td>• 54% in training NGOs</td>
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<td></td>
<td></td>
<td>• Building awareness/understanding on concepts and methodologies, promoting eco friendly practices, micro level planning, developing training materials</td>
</tr>
<tr>
<td>Academics/Researchers</td>
<td>Teaching/Training</td>
<td>• Generally, as teaching material for PG students</td>
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<tr>
<td></td>
<td></td>
<td>• 59% using for developing training material</td>
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<td></td>
<td></td>
<td>• 35% as reference material</td>
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<td></td>
<td></td>
<td>• As source of ideas for project proposals</td>
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<tr>
<td>Media</td>
<td>Awareness</td>
<td>• Farm related programmes of National mainstream media (All India Radio, Doordarshan (TV))</td>
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<tr>
<td>Credit Institutions</td>
<td>Awareness</td>
<td>• Creating awareness on alternatives as well as potential programme areas for support</td>
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Sharing the content/ Spreading the message

Spread of LEISA content has not stopped with those who receive the magazine. The ideas and experiences are spreading quite extensively. Around 95% of the reader respondents have reported sharing the contents with others in various modes.

- 53% with farmers
- 41% in workshops and meetings
- 47% with professional colleagues.

Around 65% of the respondents have clearly indicated the number of people with whom they share the contents.

- 47% of them with less than 10 people on an average
- 39% in meetings comprising a group of 40-50 people
- 13% shared in huge gatherings, reaching more than 100-1000 farmers
- Few others said, “many” farmers
- Some expressed in terms of the number of times they shared – i.e., 2, 3, 5 and 6 times.
Why is LEISA India interesting?

Around 99% of the respondents have found the magazine interesting. Broadly, the reasons mentioned by majority of the respondents are as follows.

- 74% - awareness on alternative agriculture
- 54% - mix of local and global experiences, on relevant experiences from diverse contexts
- 46% - emulatable field based experiences
- 27% - sections of sources and networking for deeper understanding and wider contacts

Narayana Reddy column wherein a farmer shares his own experiences has been one of the most liked features of the magazine.

Features Interesting in LEISA India

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Field focus</td>
<td>45.8%</td>
</tr>
<tr>
<td>Awareness on alternative agriculture</td>
<td>74.2%</td>
</tr>
<tr>
<td>Balance of local and global</td>
<td>53.9%</td>
</tr>
<tr>
<td>Thematic treatment</td>
<td>15.3%</td>
</tr>
<tr>
<td>Information on sources</td>
<td>27.2%</td>
</tr>
<tr>
<td>Others</td>
<td>18.3%</td>
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</table>
Why few feel it as inadequate?

- Lacks aggressive views to fight MNCs.
- Does not highlight issues of various Indian States.
- Not enough articles on ecosystem research
- Thematic approach preventing inclusion of latest ‘issues’

Suggestions for improvement

- The magazine should be published in all major Indian languages
- A column on frequently asked questions (FAQs) on LEISA may be included along with answers for the farmers
- Start LEISA column in large circulation newspapers and compilation of these columns should come out as a magazine
- Networking with blogs, organize seminars, start district or state level LEISA chapters
About the Respondents

Respondent categories
There has been a good and balanced representation of reader categories. Largest response was from NGOs (30%) followed by Academic Institutions (18%) and Farmers (15%). Around 4% of the respondents are students. 10% of the total respondents are women.

Response vis-a-vis years of readership
The mix of respondents includes relatively ‘new’ readers as well as enthusiasts of LEISA movement over a long period. Around 96% of the respondents indicated years of readership with the magazine. (NR - No Response - 4% didn’t indicate).

Of the total respondents, around 56% of the respondents have been receiving LEISA India since 0-4 years. (relatively new and were not part of earlier surveys).

Around 32% of the respondents have been receiving LEISA India since 5-10 years.

Around 8% of the respondents are those who have been receiving LEISA magazine since the time it was published as ILEIA Newsletter.
An idea can bring about a revolution. This case highlights the spread of a changed farming system (SRI in paddy) taken up by an individual

Case 1

First source of information on SRI

Since 8 years I have been propagating SRI method after reading LEISA India magazine (about a successful experience in Andhra Pradesh). There was no government support for propagation of SRI method except a few NGOs had some knowledge. Later in 2005, the district administration and Agriculture department supported this method and conducted workshops/training programmes.

Basically, I am a government teacher/trainer having an inner call for human development. Of course, my area of expertise is Primary Education. Still, I find time to spare on LEISA concepts from time to time. I travel extensively throughout the district (Ganjam) and introduce the concepts during teachers training or farmers trainings.

Often, I come in contact with agriculture, horticulture and forest department people. Nowadays, the agriculture department has printed booklets, leaflets, CDs for video display and invite guest faculties for propagation of SRI method. The block level VLWs and agriculture extension officers conduct trainings according to their convenience. The District Agriculture department conducts trainings on SRI method which is not sufficient for implementation. Besides NGOs like GRAM VIKAS, LIPICA, ISRD etc., introduced this method in their target group communities, i.e., remote tribal/hilly areas. The method is slowly getting popular when farmers gain knowledge by exposure trips. Farmers did not believe initially but now they are convinced, but the number of motivated farmers is low.

I am not yet sure of the number of SRI practitioners. Most farmers showed keen interest to adopt this method on trial basis and later again skipped to their traditional methods.
During my interaction with farmers of about 20 villages, they agreed that they yielded better crops and are benefited. Some farmers got 20-25 quintals of paddy from an acre whereas traditional method yielded hardly 15-16 quintals. They agree that this is very innovative and cost effective but cumbersome method to adopt on a large scale.

Last but not the least, 75% farmers of Ganjam district work as migrated labourers to Surat, Mumbai, Chennai or Bangalore. So the effects of SRI trainings are not yet visibly materialized. They don’t believe that only agricultural engagement can bring them enough income. As a result they lose their interest to engage full time in agriculture.

– Shri Pradeep Kumar Mohapatra, Bhimapur, Ganjam District, Orissa - 761007.

Caselet 1: Practising SRI on the field

I am sharing my experiences about SRI. I have planted BHAVANI traditional variety rice for 2 acres. From LEISA India I got the idea and details. Some details, I got some from Pasumaivikatan, a tamil magazine too.

In SRI paddy we need only 2 kg seeds per acre. Weeding becomes easier with cono weeder. It creates aerobic conditions in the soil, increases disease resistance. I got yield nearly 20 quintals per acre which is 100% organic. SRI is a gift for organic cultivation.

– Shri S Balachander, Kagalavadi, Karnataka

Email: biligiribala@yahoo.co.in

portions from Shri Pradeep Kumar’s neatly written letter
Case 2

Revival of a sick sugar factory

The M.R.K. Co-operative Sugar Mill area is situated in the coastal zone of Tamil Nadu with nearly 21.42 per cent area under alkaline soils which reduces the sugarcane productivity drastically (average yield is 52 t/ha). The yield at that time was very low compared to the state average of 110 t/ha. The climate is not suitable for sugar accumulation leading to reduction in sugar recovery. However, the area is conducive for the spread of red rot disease.

A program envisaging participatory mode of technology transfer (farmer- to farmer interaction) was implemented during 1998-2001 to spread the new sugarcane variety Co 86032 in the factory reserved area. Due to the better performance of this variety, it was well perceived by the factory as well as the cane growers and the spread was in leaps and bounds.

The obvious success of the previous program and the desire to accelerate the transition to a more farm-oriented sustainable program, fully based in the particular sugar mill and with greater emphasis on use of the farmer participatory approach gave rise to the initiative to formulate and execute the present program during 2002. The project was implemented as a collaborative venture of Sugarcane Breeding Institute, Coimbatore with Annamalai University, Chidambaram. Project period: 2002-2006. It was under the project ‘Participatory rural action to remedy problem soil situation’ which was funded by out institute. It was an inter institutional project done in collaboration with Annamalai University and M.R.K Coop sugar factory.

It was participatory approach, wherein the cane growers were made to conduct trials in their fields and choose a variety most suited for their factory area. Participatory rural appraisal and

In development sector, people’s involvement is core to success. This case highlights the adoption of participatory approach which helped in reviving a sick sugar unit by introduction of sugarcane varieties suitable to the location.
agro-eco system analysis were done with the participation of farmers to assess the situation and identify the needs of sugarcane growers. The PRA techniques utilized comprise participatory mapping, timeline analysis, trend analysis, seasonal analysis, crop calendar, matrix ranking, livelihood analysis, gender analysis, venn diagram and transect analysis. Based on PRA, agro-ecosystem analysis and discussion with the farmers and factory personnel, the problems prevailing in the area were identified and prioritized as per the importance.

To start with, an action plan was charted out for the three collaborating agencies and implemented with the participation of farmers. Subsequently adaptive trials and multilocation trials were conducted in farmers’ fields and two sugarcane varieties viz., CoV 92102 and Co 86032 were identified for alkaline soils.

The factory was considered as a sick unit in 2002 and was on the verge of closure. Due to the timely introduction of alkaline resistant varieties, the average yield of the factory has increased from 52 t/ha during 2000-01 to 67.15 t/ha during 2005-06 season. During 2004-05, the factory was awarded by the state government for best performance among the cooperative sugar factories.

Source: Dr T Rajula Shanthy, Senior Scientist, Extension Section, Sugarcane Breeding Institute, Coimbatore, Tamil Nadu – 641007
Email: rajula.sbi@gmail.com
Case 3

LEISA for self sustenance

My farm is situated near a forest area, 25 kms. from the Karwar-Kaiga Road. Houses are spread apart and the nearest house is half a kilometer away. I purchased a farm of size 13 acres with 10 acres of coconut plantation with the help of a bank loan in 1986. Most of the coconut trees had only 4 fronds. During that year (1987) I just got 30 coconuts. But, now in 2000, I am able to harvest 36,000 nuts. On two acres of land, I have planted Vanilla and Aloe Vera on an acre of land. Bee keeping is yet another activity being pursued.

Children of farmers educated in rural government vernacular schools migrating to urban areas in search of white collared jobs is considered normal. But the son of a (Retired) Divisional Manager of Syndicate Bank, educated in private English medium school in cities from nursery to graduation, having no special interest or knowledge in agriculture or rural areas, opting to be a farmer on the outskirts of a village is a paradox, isn’t it? But then I seem to be doing everything paradoxically! so much so, that even my opting for LEISA (though I didn’t know that such a concept existed) was a paradox, a protest!

Some officials of the Agriculture Department visited my farm in 1988, within a year of my becoming a farmer (on paper!). I put forth a few of my problems before them. They suggested a few chemical remedies and even offered fertilizers at 75% subsidy to be delivered at my doorstep. I ordered 3 and a half tonnes for my farm and utilised it.

A few months later, a Horticulture Department Officer visited me. I didn’t even know the difference between these two departments. This gentleman was shocked when I told him I used the particular fertilizer in such a big quantity. He said that they had suggested it only to reach...
the target set by the government. So what was the solution for my problem? He suggested another chemical. Was he given a target for this chemical? I asked sarcastically. He just smiled and said nothing.

That was the day the LEISA concept entered my life unknowingly, when I decided not to fall a prey to these marketing policies of the government and industrialists. Then what were the alternatives? Natural and bio-friendly measures suggested my ex-college mates who came from agricultural families. I was advised composting, as a lot of greenery was around my farm in the forests. I dug many compost pits, got some local cattle, mainly for their dung (manure) and set up a gober gas plant in 1990. But cutting trees/greenery was hurting me – in a small way, wasn’t it deforestation? So I started looking for alternatives again.

My farm has a stream on 2 sides. Here, dry leaves, twigs etc from the forests are washed off during monsoons and stored in pockets. I utilised this as a manure/compost and got good results. To increase availability I put up small bunds/check dams using locally made rings/barrels. This ensured ample availability of “Kusree” (as it is locally called) for my farm.

For additional fertilizers, I tried vermi-composting. But lack of knowledge and experience showed and my attempt failed. But I want to take it up once again. Now, I have planted lot of glyricidia trees, which can be harvested for greenery once in 3-4 months. Co-incidentally, it takes 3-4 months for vermi-compost to be ready. All bio-waste such as grass, left over food, vegetables etc. can be used in vermi-composting. Then, I can save the greenery in the forests around my farm, but not cutting it and also avail a lot of manure in the form of vermi-compost.

My farm is partly irrigated by drip system and micro sprinklers irrigate a part. I have a 3 HP AC pumpset and a 2 HP solar pump. The farm is fenced by solar electronic fencing. With the help of a “Palm Climber” (an instrument to aid in climbing coconut trees), I pluck the coconuts
myself. My wife helps me in all the farming activities. So, I am self-sufficient in the basic needs of the farm.

About 9 workers are employed on the farm. They come to work here, when they don’t have work on their fields or homes, purely at their discretion. I provide them work and wages whenever they come. They get their wages at the end of the day’s work. In times of necessity, they are even given advance money, which they repay at their leisure, interest free!

This policy has ensured them a social security. I am benefiting from their loyalty and honesty. I can not only maintain my farm but am also developing it by taking up new projects, using their traditional and conventional know-how, their experience, expertise and enterprise coupled with guidance from expert friends of mine.

To conclude, I quote a kannada poet, “Better own a hut than a borrowed palace, better hard-earned porridge than a 5 star meal!”

Better self-sustaining and independent farms and farmers following bio and eco friendly measures of LEISA than the cash guzzling, health-hazardous, tension creating, industry and subsidy dependent way of chemical farming.

— S S Kamat, Farmer, Karnataka
**Case 4**

**Eco friendly pest management in orange – a farmer’s experience**

This is a success story of a farmer who has implemented the concept of bio control in orange orchards successfully. He was interviewed by All India Radio on this subject in farm programme.

B. S. Shivashankar, an agriculture graduate and a practitioner of organic farming since past 30 years, is a keen observer and experimenter of all new happenings in agriculture. Belur estate in Somwarpete tq. of Kodagu district, is a testimony to all his efforts in this field. Traditionally he is a coffee grower and recently tried to revive the coorg mandarin which is on the verge of extinction. He has grown more than 5000 orange plants in two blocks along with coffee plants.

Last year he had bumper crop but could not reap them as more than 80 percent of the fruits dropped because of fruit fly problem. He had approached the Horticulture Department and scientist from Central Horticulture Experimental Station, Chethalli. They had suggested to go for aerial spray with an insecticide that could keep away the fruit flies. The scientists and the department people suggested him to go for pheromone trap and helped him to acquire the necessary materials.

Shivashankar insisted on bio- control and asked them if there are any such methods. He wasted no time to implement the bio -control agent in his orange orchard and was eager to see the results. To his surprise it worked out well and he could see the changes during the first year itself. He could harvest 60% more fruits and this had given him much needed confidence to try out the same method in other fruit crops also such as guava, citrus, mango etc. This year he has...
planned well in advance and installed the pheromone traps at the rate of 8-10 per acre. The plants are in full bearing and he hopes more than 90% of it will ripen yielding good returns. He opined –the state government should come forward to give wide publicity and financial assistance to implement this eco friendly method and the farmers should come forward to take up this on priority basis. After broadcast of this programme several other enthusiasts enquired about this and started following the guidelines which they found very useful and eco friendly. For several years, LEISA India has been inspiring with its relevant content on tips/practices.

Address of the Farmer: B. S. Shiva Shankar, Belur Estate, Somvarpete Taluk, Karnataka.

Source: T. Shyam Prasad, All India Radio, Madikeri-571 201, Karnataka.
Email: tsprasad@yahoo.co.in

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**Caselet 2: Reaching out the content through local language**

When I probed into the history of Indian Agriculture, I have found many interesting facts did not find place in that. Tamil Culture is very old. So I have started probing into the past agriculture of Tamil Nadu. Through literature and historical documents, I have found many interesting facts about the past agricultural practices and I have written district wise for 4 districts Salem, Trichy, Madurai, Tirunalveli. I am waiting to get few more records for further compilation.

I translate all the good material wherever it is available for making wholesome article, that is my passion. I don’t literally translate LEISA magazine contents, instead integrate the content into various articles.

– Shri V Gunasekaran, Department of Agriculture, Dharmapuri, Tamil Nadu
Email:anjusowthamini@yahoo.com
Case 5

Organising farmer group into producer company

This was the detailed response provided through email interactions.

How did you use the information on Producer Company? Are you working with groups of farmers, in which location?

I worked with farmers and SHGs in Nadukuppam village, Marakanam block, Villupuram district, Tamil Nadu as a consultant to the Pitchandikulam Bioresource Centre, Auroville 605101. The project is situated in the centre of the Kaluveli Bio-Region of coastal Tamil Nadu, South India 110 kilometres south of Chennai. It is an extension of the work of Pitchandikulam Bio Resource Centre (PBRC), part of the Auroville Community located some thirty kilometres away.

As part of an exercise to introduce an integrated village development model, it was proposed that the village should set up enterprises managed as collectives to convert their natural resources and agricultural produce to commodities and products instead of selling off the raw produce to middlemen who pocketed the profit on its conversion. The main products of the area are paddy, watermelon, tapioca, sugarcane and rainfed crops.

Human capital was trained in tailoring, public health and teaching.

Some of the projects identified were:

1. Tapioca conversion factory for edible starch products
2. Medicinal plant pharmacy making herbal and siddha medicines
3. Ready made cotton garments

Success stories can be replicated. This case is about forming local level institutions like Producer Company to help farmers in better marketing.
Termed as social enterprises, the village level staff and key animators were briefed on the basics of a producer company. The local branch of the State Bank of India adopted the village under its model village plan for the district and promised access to capital without strict criteria. During discussion, the concept of a producer company and awareness of such a structure mobilised support for the business like approach.

I used to advocate the formation of a public limited company under section 25 of the India Companies Act 1956 (Amended upto 2000) till then. However the article which appeared in issue March 2007, LEISA INDIA as ‘Producer Company - a new generation farmers institution’ by Yogesh Kumar Dwivedi and Arun R. Joshi was a quantum leap in my learning. Since then I have researched the concept on the net and have always spread the message in my training programs.

*What is the procedure you had to adopt to form the Producer Company?*

The creation of the Producer Company is not yet complete. However the process flow till now is as follows:

- Information shared with program staff and village animators
- Concept discussed with Regional Manager - State Bank of India
- Village Development Group created leading to other sub-groups like Famers, women and youths groups.
- Foundation work for village organisation commenced with building of Village community Centre with pooled funds from MP and MLA funds, UNDP and panchayat land.
- Village adopted as model village under SBI model village program. Micro loans given for income generating programs
- Confidence Building Measures (CBM) through the above to create a sense of community
• Spirulina production plant along with functional products
• Milk Dairy Processing plant with by-products
• It seems that a Primary Health Centre (PHC) managed from community insurance pool and a web of micro-enterprises to supply the PHC with medical supplies would help to bring this structure into place. A community Service Centre would provide entrepreneurial groups with a clean environment to make herbal medicines, pack medical supplies and set up down stream and upstream cottage industries.
• The proposal will be a part of a larger integrated rural development plan for the bioregion and submitted to the knowledge commission for its support.
• Once funding is obtained, the following would be implemented:
  - exposure visits to Madhya Pradesh to study the functioning of producer companies
  - short listing of a lawyer and chartered account to draft the memorandum
  - prepare a social enterprise business plan
  - public exhibition and group discussions of the plan and modification of the draft documents

**Caselet 3: Producer company linked to Corporate marketing outlet**

Our members grow bananas in the Pulney hills and sirumalai hills in Dindigul district of Tamil Nadu. We are able to get better planting material now and also are able to market better. We also have G.I. registration for our bananas. We have 180 members though all are not as active as one would like them to be. Our produce goes to the Chennai market. Reliance Fresh buys from our members.

– Shri Shaker Nagarajan, Coffee Planter, Dindigul, Tamil Nadu
  Email: coffee_planter@hotmail.com
- multi-agency supports to provide expertise
- appointments of operations staff
- project flag off

**How are the farmers benefiting from this initiative?**

The farmers, SHG and others will benefit in the following ways:

- Cheaper goods through collective and surplus distributed for community
- Village becomes a business hub through the producer company and gets access to other markets in the bioregion
- Savings of SHGs is mobilised for industrial production and away from personal loans
- Community ownership of the enterprise serving public good and control on the surplus.

**Any other information which you wish to share?**

The amended Companies Act 2008 is tabled in the Rajya Sabha and will be passed in the Lok Sabha after elections. This will be another quantum leap for small and micro enterprises. Some of the proposed introductions will be:

- Formation of 1 person Private Limited Company
- Simplified creation and dissolution of Company

With these legal developments, there is a positive legal environment for micro-enterprises to be managed on sound business principles and get organised. This will provide access to finance and break the dependency on donor grants to run rural enterprises.

— Shri Sanjay Doctor, Mumbai, Maharashtra

Email: mikrofields@gmail.com
Case 6

Transitioning to LEISA

Though I was born in a farming community, I did not take up to farming initially, but served the government department. I had a feeling that while the professionals in most of the fields grew day by day, it was only the farmers who were left behind, without much change in their lives and living styles. I wanted to solve this problem, starting from my family. I resigned my job and took up farming in the 1970s. It was the time when the chemical agriculture was in full swing. Besides farming, in order to help farmers get better yields and also enable myself to get better income, I started a business in fertilisers and chemicals. Naturally, I also started applying chemicals indiscriminately on my farm. In 1996, when I calculated the returns over investments made, I was shocked to know that I was in fact making huge losses. I wanted to know the reasons and got interested in alternative ways of farming.

By this time, "organic farming" was being talked everywhere. I read some interesting books on Organic farming. I toured many organic farms and every organic farm raised hopes in me to follow alternative ways of farming. I have been doing Natural Farming from 11 years (Fukoka’s concept) under the guidance of Narayana Reddy and Nammalwar. I was trained by Fukoka himself. LEISA India was a source which motivated me to a great extent.

In a foolish attempt, I converted my entire farm (Santosh Farms) into organic overnight, without a forethought on the extent of income loss due to this. The experience has taught me a great lesson that the change should be gradual. There could be two ways through which this change could be brought about – a) Changing the farm, part by part over a period of time.
b) By reducing the quantity of chemicals used gradually – over time organic inputs should replace all the chemicals on the farm.

In my experience, I realised that, through organic farming practices, there is a drastic reduction in water requirement. Rainwater harvesting, water conservation and proper water management results in raising ground water. Activities like compost making, earthworm rearing, waste management of biodegradable agricultural wastes keeps the family employed on the farm all through the year.

It is beyond doubt that conversion cant be done without money loss, but could be done with safety and precaution, so that the losses could be kept minimum. Though the returns are not immediate in chemical free farming, there is guaranteed sustainable income with chemical free produce.

– Madhu Ramakrishnan, Ooruppannadi Nivas, Kottur, Malayandipattanam (PO), Pollachi, Tamil Nadu – 642 114. Email: ooruppannadi@sancharnet.in

**Caselet 4: Azolla as cattle feed substitute**

I have referred one of the article appeared in your LEISA magazine on "Azolla- a sustainable feed substitute for cattle" and practically I have tried the azolla demonstration plots and feeding trials in milksheds of Maharashtra and Goa when I was working in Maharashtra. Farmers have given a very good feed back on usage of Azolla as cattle feed substitute. Similarly, I have got very good knowledge from your magazine viz., recent things / technologies going on in agriculture field in our country as well as in rest of the world on organic farming, farmers experience (Shri Narayana Reddy Column) and Sustainable Agriculture.

– Shri Sharankumar Biradar A, Junagadh, Gujarat
Case 7

Doing is believing – Guiding younger generation towards ecological agriculture

I am a government school teacher cum trainer in a middle English School of Guhalpur which is 10 kms from the Block Head quarters in Ganjam district. The school was established in 1954 and at present the total children are 160 and four teachers are appointed. My school is a model ecoclub school since I act as the Master Trainer for eco club project under National Green Corps.

Maintaining a kitchen garden is not compulsory but we introduced this as a part of activity based learning environment. Since most of our children come from poor farmers background and they show keen interest in gardening. So we fixed the last period for this work. The kitchen garden is about 200 sq.mts (20x10 m). The vegetables like Papaya, drumstick leaves, beans, seasonal vegetables are mixed with Dal in the school’s mid day meals.

Children have a special sharing class for one hour on every Saturday. Children’s cabinet is formed and various activities like debate, essay writing, poster making, rally, one-act play etc are conducted. We listen to children’s success/failure while maintaining the kitchen garden and advise them for necessary follow up actions. No special training for raising a kitchen garden is imparted to our children.

I have been working here since 10 yrs and never asked children to use chemical fertilizers or pesticides. In the beginning we were troubled by white ants, soil acidity and different diseases. Dr. Narayana Reddy’s columns helped us to face the problems. Soon, we used green manuring and continous observation to overcome the problems.
We use cowdung, neem leaves, deodar leaves for green composting. The school is surrounded by 25 coconut trees, 32 deodar and 5 neem trees. So the leaves with cow dung/water are composted in two pits alternatively. Vermicompost is not yet a big success to us. However, we experiment the same after gaining informal knowledge particularly from LEISA India and other booklets.

The biggest benefit we realized is that our children get practical knowledge on several environment science related competencies. And enjoy their lives at school. Their affinity to kitchen garden as well as school (their second home) is remarkably high. Besides children enjoy the fruit of their labour by eating the fruits and vegetables in their mid day meals.

Last but not the least, most of my children belong to farmers families. Doing is believing and this belief led everybody to think independently and work as first generation educated farmers. The kitchen garden and compost pits are the most joyful tools for the children.

– Shri Pradeep Kumar Mohapatra, Guhalpur, Orissa
Case 8

I am a LEISA farmer

I hail from a farmers family. My father and forefathers were all arecanut growers. I studied in a rural area for ten years and completed post graduation in Agriculture from UAS, Bangalore. After working in a private company for a few years I took up to farming on my own piece of land. My land had red lateritic soil. Though it was good in micronutrients like Fe, Mn, Zn and Cu, it was poor in Potash. Initially I used Muriate of Potash based on soil test results. After two years I found out that application of Potash had not improved yield level considerably. I felt that it was also affecting the earthworm population.

This was a time when many voluntary organisations were propagating organic farming methods. I got interested in it and started attending all the related seminars and workshops. I also became a member of organic farming association of India. Now after 6 years organic farming has become a way of life.

After reading farm magazines like LEISA India I changed my thinking. I am a LEISA farmer. The one-acre model (“Rudraaradhya” model) in LEISA India inspired me a lot. I along with 4-5 farmers went to the farm and saw it.

With more and more understanding of organic way of farming, I also started small level innovations. For example, I prepared a concoction of eucalyptus and soapnut for managing pests in vanilla and pepper. This proved to be effective. One more idea which proved useful was the use of newspapers for mulching.

Earlier, I used to mulch using areca leaves, husk, coconut fronds, dry leaves etc. But owing to their multiple utilities as a source of fuel and locally available material for making livestock

Innovating continuously is his passion
Inspiring Cases of LEISA India Use

sheds, it was difficult to procure these materials in adequate quantities. One day, I observed that a piece of paper fallen in our orchard, was slowly getting decomposed. It was also acting as food for earthworms. This triggered me to try using newspapers as a mulch, which otherwise I was selling them for a song.

I spread each double folded newspaper on the ground in between plants and cover this with fallen coconut frond, so that they don't fly away. Over this, dry leaves are spread. In about a month, the whole lot will decompose, except the top layer. The operation is repeated year long. I have experienced four main benefits from this practice: 1) Food for naturally grown earthworms, (2) moisture retention (3) weed control (4) temperature retention during night-especially beneficial during cold winters.

This technique is also being tried out by my other friends in their farms.

– Vinayaka Rao, B.R. Sagar Taluk, Shimoga District, Belur - 577 401, Karnataka - India.
Case 9

KVK trying out organic cotton

The farming community comprising of mainly small and marginal farmers growing cotton in rice fallow for a considerable period have been considered for organic cotton cultivation. These sorts of initiatives have been taken up by KVK from the last year in the island situation because of huge dearth of virgin land in main land situation, preferable for organic cultivation. Again, the small land holding (average 0.13 ha/farmer) hinders the organic cotton cultivation in a compact area. Though it has been started in scattered way and hopefully in long run, it will take a good shape.

During rabi-summer season, due to huge scarcity of irrigation water accentuated with soil salinity, no crop was possible and the lands remained fallow. In this situation, KVK took the initiative to utilize the fallow lands by introducing cotton in rice fallow as the crop can tolerate little bit salinity and requires less or no irrigation for its deep root system. To sustain the system, a number of trials on variety, spacing, fertilizer and pest management etc., had been conducted by KVK. It has been proved that cotton is one of the most important second crop for rice fallow of South 24-Parganas district.

Farmers apart from economic benefits are also benefited by different ways through cotton cultivation.

- They are getting certain amount of profit from cotton without leaving the land fallow
- Cropping intensity is being increased by adopting crop intensification programme with the introduction of cotton.
• Cotton leaves fallen in the fields increases the organic content of the soil which in turn reduce the soil salinity and can improve the crop production for the next cropping season.
• The farm women are interested in cotton cultivation as the dry sticks of cotton can be used
• Each and every part of cotton plant like leaves, dry sticks, bracts and roots are being utilized by the cotton farmers. Bark is utilized for handicraft products and the roots for medicinal value. KVK has developed a marketing system to market these products.

At present, the total cotton produced in South 24-Parganas district and even in North 24-Parganas district is purchased by Cotton Corporation of India, Kolkata, with the help of our KVK. This type of marketing linkage was developed by KVK in the late 90’s and till date CCI has taken the responsibility to procure the same. To improve the marketing procedure, a large cotton godown with modern ginning facilities has been set up in KVK where all of our farmers used to bring their produce, grade it with CCI personnel and sell it with the rate fixed by the Govt. of India. There is no chance of any intervention of middlemen. Farmers get the actual rate. Whole process is monitored and supervised by our KVK cotton extension personnel and scientists.

For organic cotton, a number of issues like certification procedure, marketing system etc. have been discussed with different agencies like Agrocel, Gujarat, Roots and Yards etc., but it has not yet been materialized because of less availability of organic cotton. In future, Fair Trade Cotton Marketing System will also be developed and for this purpose initial discussions are going on.

– Shri Dipankar Shah and Shri Nilendu Jyoti Maitra, KVK, Nimpith Ashram, West Bengal.

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Case 10

Adopting fair trade practices

I am working with Attappady Hills Area Development Society in Palakkad district. We are working for the eco restoration of the Attappady Valley. The population of tribes in this area is 40% of the total population and they are involved in agriculture for their sustenance. Rest of the population cover other caste people and they are also in the lower ladder of economic status. They are also farmers. All of them face the same problem with the marketing of their produce.

The natural resource development efforts of AHADS, through community based organizations, on participatory and watershed mode, during the past ten years, have resulted in rejuvenation of streams and wells that have dried up two decades ago. Obviously, farmers who have fled the Eastern Attappady hills in search of alternative livelihoods, abandoning their lands have resumed cultivation on the rejuvenated tracts over the past three four years.

On resuming farm produce once again, the farmers had to brave the middle men who eat away a major chunk of the margin due to them.

We, the staff members used to discuss the success stories from your magazine and it really helped us in organising different programmes. And now came in handy LEISA’s efforts and stories to the desperate farmers. During our discussions with the community, we used to quote success stories from LEISA magazine. Once we discussed about the fair trade activities with the farmers of Eastern Attappady and they were really impressed with it. Later we visited the Key Stone Foundation at Kottagiri (the institution which was the author of the article on fair trade). We had discussions with the key persons of that organisation.
Later the farmers in the eastern region organised and formed a cooperative called FARMA. AHADS facilitated a farmers meet in which the community discussed in detail their threats and opportunities and thus was born FARMA on September 1, 2008.

Its main objective is to support the farmers to sell their produce at reasonable price. The farmers enrolled with the cooperative are marketing their produce through FARMA and they are getting a fair price for their produce. The byelaws for the cooperative have since been finalized and FARMA is to be registered as a cooperative shortly. The vision of FARMA is to function as an independent body to support fellow farmers financially and technically after a year or two when the AHADS project winds up. A collection center with amenities like drying yard, storage facility, collection and distribution center etc., is currently being constructed by FARMA by the assistance of AHADS at a township called Anakatty within the project area.

– Shri Umesh.S, Attappady Hills Development Society, Agali, Kerala
Email: appusnair@rediffmail.com

Caselet 5: Collective marketing for a better price

Many articles in the magazine refer to farmers’ innovative ways of marketing. But, I was attracted towards an article ‘Farmer functionary research-an innovative methodology for transfer of technology’ in vol 8.no.3,2006 of LEISA India. The farmers clubs I referred to are in Angul district of Orissa. There is a federation of 70 clubs. They are marketing the agriculture produce mostly seasonal vegetables collectively and the advantage they are getting is tremendous, like a fixed price for all produce throughout the year.

– Ms Bineeta Satpathy, KVK, Hulurisingha, Orissa
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Case 11

Green manuring is the key

Though I belong to a farming family, I did not know much about farming when I started it. I had 15 acres of paddy and wanted to do very well. Therefore contacted departments and used more inputs – there was almost 50% loss in yield. I used to have too much tension. Chemical farming itself, I felt, as a nuisance. Then I came into contact with publications of Fukoka, LEISA India etc.

In the same year 2000, I got a huge yield loss in paddy due to Brown Plant Hopper attack. I spent 40% of inputs in the form of fertilizers and pesticides. I went in search of information especially on rare ingenious knowledge. By that time I met Mr. Krishan Prasad of Green Foundation who suggested some information sources on alternative agriculture. LEISA India was one among them.

My first step was towards low external inputs for sustainable agriculture. The word LEISA inspired me a lot and I went in search of alternatives. I found green manuring is the answer and substitute for those inputs. I have got success. I am getting above average price for all my crops.

‘Growing paddy on permanent rice beds’, a success story of South East Asian farmers an article in LEISA India inspired me to adopt the method with 50% lesser cost. I started cultivating basmati paddy on one acre. A saving of 50% is equal to making profit.

In the year 2000, I had very little water to feed my arecanut garden. So stopped cultivation to conserve moisture and started growing more leguminous cover crops. Today we have lost...
diversity in weeds also due to tillage, use of weedicides and inappropriate practices. In nature we can see dicot and monocot weeds in 3:1 ratio where there is no human interference. There soil works for itself and regenerates naturally. Soil microbes need host plants, moisture, aeration, shade and micro climate to bring back weed diversity. The logic behind zero tillage – no weeding is to grow leguminous species along with crops. Soil works for itself, all it needs is a live soil cover.

Following is my experience of using green manuring in paddy. Two types of green manuring can be followed in paddy cultivation.

a) Pre rice green manuring – Plowing the green manure crops just before flowering. Plants would have reached a height of about 8 feet. As the plants are tender at this stage they get easily decomposed into the soil. After these plants are ploughed, paddy cultivation could be taken up.
b) Post rice green manuring – Soon after the paddy is harvested in Nov-Dec, I broadcast the green manure seeds (for eg. green gram) without cultivating the soil while the straw and residues of paddy is still there on the field. The seeds germinate making the straw as a base. By April, I harvest the greengram seeds. I leave the crop, which is about 2 ft, on the field itself. Crops like Daincha, keep growing and reach a height of about 14 ft, after monsoon commences. These are again incorporated into the soil using cage-wheel tractor.

I have been doing "post rice green manuring" for the last seven years. In two years it is possible to improve any type of degraded soil into healthy soil. It is also the cheapest and fastest way of reclaiming degraded soils. In one year of green manuring this way, we can add 4 inches of organic matter to the soil.

I have been growing paddy on 15 acres without fertilizers and pesticides. Not even organic manures, but only incorporating green manure crops. I transplant 14-18 day old seedlings and carry out weeding twice. Weeding is done mainly to aerate the soil. I do not flood the field. Presently, I get about 25 quintals of paddy per acre from traditional varieties. Water management and biological nitrogen fixation are the key factors in improving productivity and maintaining soil health. I have conserved around 25 rare indigenous varieties of paddy. In my view, the source of profits lie in minimising the inputs and LEISA is the key to sustainable agriculture.

I am thankful to LEISA team. Information should speak for itself so that farmers never get confused and move away from sustainable agriculture.

– Shri Nandish.B.N, Farmer, Shikaripur Taluk, Shimoga Dist, Churchigundi, Karnataka
Case 12

Spreading beyond country borders

We are a Training Organisation offering various kinds of training to Industries and Business houses in India and abroad. We are also involved in social and charitable activities. Our main focus is environment and education. We facilitate the dissemination of environmental protection technologies and preservation of natural resources. We also help tribes, rural and semi-urban youth and villagers to practice agriculture using natural inputs.

We collect lot of inputs from magazines, publications, websites and other research institutions. The information is compiled into power-point presentations and shared amongst the beneficiaries. At present, we are not compiling data on the outcome of the utilisation of the information.

In addition to the sharing of information on the valuable research reports and the articles published in various journals, we are associated with the Hope Foundation in Coimbatore, Tamil Nadu Tree Growers Association, Tree And Medicinal plants growers Association, Coimbatore (these NGOs are sponsored by the Forest Department of Government of Tamil Nadu and Institute of Forestry, Genetics and Tree Breeding, Coimbatore). All the institutions periodically conduct free camps for villagers and farmers in various parts of Tamil Nadu.

I had been to Oman for two important projects: (i) providing technical and managerial training to the Defence Logistics Division and few key Industries in Oman, (ii) revival of sick industries in Oman’s Capital city Muscat. While examining various factors, discussions were also initiated by the Officials on Protection of Environment and promote environment friendly agriculture.
Some of the presentations shown to the other farmers in India, were shown to Oman Officials. They wanted to try some of the techniques. Since we provided the source of the information, immediately they interacted with the respective contributors and their associates.

Prevention of top soil erosion, water retaining techniques, identification of trees which can grow in deserts, especially in northern part of Oman are some of the results the officials shared with me during my subsequent visits in connection with our regular trainings on Total Productive Manufacturing (TPM) and EMS implementation projects in Oman.

Though sharing of the information with Oman officials did not help us to earn monetarily, we as Indians gained reputation on helping a desert nation to grow plants. Yesterday, I was informed through reliable vegetable vendor of Oman that they are planning to grow carrot, tomato, cabbage, cauliflower without fertilisers and pesticides.

Already the Sultanate of Oman is in constant touch with Government of India for availing various agriculture technologies.

– Dr Raj Mohan, Chief Mentor, Man2succeed, Krishnagiri, Tamil Nadu
   Email: humancapital@man2succeed.org
Case 13

Media requires reliable and workable practices to make its content rich, informative and useful to farmers. This case is about the use of LEISA content when shared through the popular local print media motivated many other farmers to practice LEISA

Information should be used for people’s development

Following is an interview done by LEISA India team with Mr. Ananda Teertha Pyati – Reporter, Prajavani, a local daily in Karnataka.

Are you a farm reporter or a general reporter? How often you write about agriculture in your paper. Is there a special/specific column/supplement which focuses on agriculture? If so what is the frequency?

I am a general reporter. There is no separate post for Farm reporting in our publication. I have been writing farm articles since seven years. Before joining this daily, I had written many articles on farming. Yes, our daily paper carries a supplement for agriculture articles on two pages every Thursday.

Generally what is the nature of agriculture information published in your paper? Is it mostly conventional/chemical agriculture or do you also give importance to alternative methods. For alternative agriculture what is your source of information?

Initially all types of agri-info were published. But, now, it is focusing on Organic and Natural Farming. Writers like me always have been writing on conventional/organic/natural way of farming. My article source is always farmers’ experience. Sometimes, I’ll take scientific validation from researchers or scientists. I stress more on farmer’s work/effort than any other typical research. Most of my articles project farmers as scientists.

How have you used the content of LEISA India? Can you mention some specific ideas/concepts which you have used?
Whenever I write an analytical article about farming, I will use the part of article appeared in LEISA India. For eg., I wrote the article, ‘what is the concept of sustainable agriculture’. In that, I used some farmer friendly methods of controlling the pest and diseases, which were published in LEISA India. I wrote seed bank project write up, which had contained some information from LEISA’s article

Do you get feedback from farmers/others on the agriculture information?
Yes, usually I’ll give contact phone number at the end of the article. This will help farmers/people to get more information about the work of a farmer. After one or two weeks, the farmer who has been highlighted in my article tells me the impact. For eg., when I wrote an article about pro-farmer scientist Rudraradhya (his project ‘One Acre Farming’ had been published in LEISA India long ago), he received minimum 1,000 phone calls! He told me that, more than 5,000 farmers visited his project area.

A larger question - do farmers get back to you saying that the information published was used practically on fields. I think this is something a person associated in any type of media would be interested to know - whether information exchange is leading to desirable changes.

Information we gave to people should be used for their development. This means that, the information should be easy to understand, to be implemented easily. Nowadays, articles are published with ‘decorative words’! When someone wrote about Vanilla, all farmers rushed to grow Vanilla. But, it’ll not grow in hot places. This simple thing has been avoided in article. Result: Now there are lots of farmers who are suffering from losses. Again, some media men came and told (in their articles) the situation of Vanilla. Result: Many farmers decided not to grow Vanilla.

Coming to your question - many farmers contacted the farmer (of my article), and took guidance from him. The farmer didn’t tell me directly - but I got the feedback from other sources.

– Ananda Teertha Pyati, Reporter, Prajavani, Karnataka.
Email: anpyatee@gmail.com
Case 14

Sharing by farmer attracts young farmers to nature friendly agriculture

Following is an interview done by LEISA India team with Mr. Somashekhara Ruli, All India Radio, Gulbarga, Karnataka

You have mentioned that you have used content of Narayana Reddy in your farm programmes - In which form do you use it - as interviews or talks?.

Like other AIR stations, Gulbarga AIR broadcasts farm programmes daily for about one hour. In the morning, five minutes will be utilized to give hints to farmers (Raitarige salahe) and in the evening between 6.50 pm and 7.35 pm., where agriculture knowledge is transmitted through various formats like interviews, talks, features, documentaries, jingles, songs, plays, skits etc. We have utilized Narayana Reddy’s views, in ‘Raitarige salahe’ in the form of talks. Sometimes, in the evening, in ‘Krushiranga’, in the form of jingles (of one to two minutes duration).

Can you also specify which practices or issues of Narayana Reddy have you used in your programmes?

It is rather difficult to specify the issues or practices. I think expertise and experience of Narayana Reddy is indeed of great use to the farmers. We have used almost all issues raised in his column. Often, we focus on his discussion on vermicomposting, bio-digestion, plant extracts, neem, effective micro-organisms, improving bio-ecology of rhizosphere by adding cow urine and other organic materials to the soil, preservation of indigenous seeds etc.

Some details on the farm programme - what is the reach of your farm programmes?

AIR Gulbarga has a reach of 120 kilo meters (radius). It covers Bidar, Gulbarga, Raichur, Bijapur, Bagalkot, Koppal, parts of Sholapur (Maharashtra) and parts of adjoining Andhra
Pradesh. There are instances wherein we receive communication from Bhadrawati, Chikmagalur and other far off places. I have already mentioned about our farm broadcasts and programmes. Since eight to ten years, organic practices and principles are the major focus areas of all AIR stations of Karnataka. The experiences of those who advocate and those who practice organic farming are regularly utilized through detailed interviews. I mean to say that, there is no specific frequency or a specific programme.

For your information, Narayana Reddy had visited our studios and had given elaborate interviews on soil health conditions of Hyderabad - Karnataka area, wonder tree neem, vermicomposting etc. His interviews are repeated every now and then.

*What is the feedback from farmers/others on this programme?*

Narayana Reddy is respected a lot in this area. His views and recommendations are taken seriously especially by young, educated organic farmers. Many farmers have adopted his ideas. Definitely, farmers take his words as has been seen in feedback on phone and my personal discussions with farmers and scientists of Krishi Vigyana Kendra.

*Have you got specific feedback on content used from Narayana Reddy?*

This question needs to be supported by a specific survey. Till now we have not done that. But, I am sure many farmers are involved in producing vermicompost and plant extracts. One or two NGOs are supporting preservation of indigenous seeds.

*A larger question - do farmers get back to you saying that the information broadcasted on radio was used practically on fields. I think this is something a person associated in any type of media would be interested to know - whether information exchange is leading to desirable changes.*

Definitely. Information transmitted in any format should reach the beneficiary to bring desirable changes. Without any doubt, NR’s preachings and teachings are attracting young farmers of
this region. Since vermicompost is a major alternative to inorganic inputs, farmers in large numbers are adopting vermiculture, utilising their on-farm resources. This change is taking place since 2000 as I have observed. Now, after eight to ten years, what has happened is that, organic and less external input agriculture is attracting young farmers who have understood the importance of nature friendly agriculture practices. As they say, they are not afraid of decline in yields in the earlier years, but are confident that these practices would bring sustainability. Amazingly, with a signboard of most backward district, Gulbarga is one of the role models of organic agriculture in the State…! About five hundred plus farmers (farmer groups also) are busy producing vermicompost for their own utilization and for sales too.

– Shri Somashekhara Ruli S, Farm & Home Unit, AIR, Gulbarga, Karnataka.
Email: rulismahashekar@gmail.com

**Caselet 6: Spreading SRI by using content for training**

I am program manager of SOVA, an NGO working in tribal district (schedule area) of Koraput in Orissa. We work on many issues including livelihood and stress on promoting organic farming. LEISA India is very rich in providing inputs and case studies which help us in strengthening our intervention program.

We learnt from March 2003, Volume 5 issue, about farmers schools and being inspired by that we have started farmers association at Koraput. and though exactly I do not remember the issue which had published about SRI, but it was a special issue on organic farming which was quite helpful in developing training manual for farmers on SRI.

– Shri Balaji Panigrahy, Koraput, Orissa
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