

livelihoods

today and tomorrow

July 2008



RAIN FARMING E D



Monsoons have come. But the rains are erratic. Some areas are getting heavy rains and some are getting scanty rains. The rhythm of rains appears to be missing the beat. Low pressure has joined hands with monsoon.

Poor, Leaders of the groups of the poor, and the organizations that work with them are still resolving how to complete the trainings that could not be completed and how to reserve time for the discussions on the plans that could not begin.

Dry-land farmers constituting the majority of farmers have given up on this Kharif. In this context, 'livelihoods' is exploring dry-land farming.

If we look at India with this lens, we have only two broad areas – one dry land and the other wet land that produces paddy, wheat and sugarcane. If we exclude urban conglomerates, the rest is mostly agri-centric area. When 70% of Indians live in rural areas, a vast majority – 80-85% i.e. 13-14 crore families have agriculture as their centre of action. More than half of them are farmers and the remaining are labour and service providers.

From this reckoning, while 3-4 crore families are dry-land farmers and 2-3 crore families have dependence on dry-land farming, making the dry-land farming the largest employer in the country. If we exclude urban centres, I do not know any other district, where there is no dry-land farming in the country. The land productivity, water productivity and person productivity is less. The diversity of the crops is on the decline. Mixed cropping is coming down. Yield is not certain till the harvesting is over. In addition, the proportion of the consumer received by the farmer is not even half.

Therefore, we need to increase our attention to dry-land farming forthwith. The research has to increase multi-fold. Mixed cropping has to be revived and increased. Horticulture has to be stepped up. Natural and organic farming has to be propagated. Minimum support prices have to be announced and implemented. Risk reduction and diversification mechanisms have to be stepped up. Market intelligence and knowledge has to flow to the farmers. Farmers need to get into groups and start collective action in various stages of the chain and at various levels. Then only, there will be some 'relief'.

The efforts of Krishi ka Rishi Zero-Budget Subhash Palekar, Bharatiya Agro-Industries Foundation's Manibhai Desai, System of Rice Intensification, Drip and other micro-irrigation, Deccan Development Society, etc., are indeed examples in this direction. Immediate agenda is Dry-land Farming Mission. We sincerely hope that governments respond to this need quickly.

July 5 is the International Day of Cooperatives. When cooperatives/collectives become the link between the producers and consumers, the lion's share of the consumer rupee reaches the producer. Hope this dream of ours becomes a reality in due course.

Recently, thanks to Srijan 2008, we have got an endorsement of our core beliefs - the needs of the poor extend beyond the financial needs, livelihoods interventions are indeed people's projects, there is a need to work with all the poor in the village despite one's interest in a section of the poor, poor have to come together and take up collective action, and the poor need to interact with the market etc. We can not forget these core principles of livelihoods.

It is also important that the socially conscious new generation litterateurs to think and bring the focus on to livelihoods of the poor, poverty reduction, prosperity for the poor etc., into their writings and thinking. The popular literature, stories, songs etc., should reflect this thinking. Mainstream print media, electronic media, news channels, spiritual channels, children's books, music media, internet and web media etc., should take more interest and disseminate this widely. The best practices, gaps, opportunities, success and failure examples etc., in local languages and simple words have to be available to the poor, the leaders of the poor and the workers of the poor so that the poor can take informed choices.

Our first Field Marshal Sham Bahadur Manekshaw is no longer amidst us. May his soul rest in peace! India can not forget him. His courage and his strategic intelligence remain ideals for us.

In the ten-month odyssey of the 'livelihoods', we are blessed with you as co-travelers. Our thanks are due to all of you. We are able to move ahead because of your company, your support and encouragement on the way. I want you to mark this and continue get going on this journey, pulling us along.

A handwritten signature in blue ink, appearing to read 'M. G.', with a horizontal line underneath.

G. Muralidhar

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‘livelihoods’ team

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International Cooperatives Day	7
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Cover Story	12
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Rainfed Farming!

30 million farmers in India depend on rainfed/dryland farming. With meager resources both natural, financial, physical etc they dwell in the poverty geography of the country. ‘livelihoods’ team attempts to get insights into these drylands.

LEAP	20
Primary Agricultural Cooperative Societies	24
Development Worker and Love	25
Educated - Part Time Volunteers	27

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Responses	4	
News	5	
Legend	Bharat Agro ‘Manibhai Desai’	8
Intervention	Drip Irrigation	9
Perspectives	Elephant and The Six ‘Blind’	10
Interview	Those Who Believe in Land Will Prosper!	17
Value Chain	Red Gram	18
Organization	Deccan Development Society	22
Policy	Policies for Agriculture	26
The Contrasts	Driving Opportunity!	28
	Fading Drama!	28
Worker	Zero Budget ‘Farmer’ Subhas Palekar	29
Books	Who Killed The Sundarbans?	30
Resources	Agriculture Support Services	31
Story	A Lesson From Butterfly	32
Trends	Farm, Animal Husbandry and Non-Farm Incomes	33
Case studies	Intelligent Farmer	34
	Brain Fever Consumed the Land!	34
‘Yoga’kshemam		35

Response

'livelihoods' magazine is very nice. The information in the magazine triggers people's thinking towards livelihoods. The cover story particularly is nice. I think all those in development sector should read this magazine.

Suresh

columns are thought provoking. The most recent magazine on education has good information. I am glad that you covered the efforts of P.V. Narasimha Rao on education and gave the readers an opportunity to know more on this front. However please take time to check for typos. Also if you can include the most recent livelihoods in your value chain analysis that will help the youth immensely.

L. Srinivasa Rao

I have been following the magazine from the beginning. I think this is a very good magazine. The analysis of livelihoods is very informative. The magazine provides comprehensive information on various aspects. The featured

Corrections in previous 'livelihoods' issues

- ♦ **May 2008 'livelihoods' Issue** - Trends and Statistics Page 33 - No 8 in the table - Jharkhand Calorie intake Per CU at Official PL is 2503
- ♦ **June 2008 'livelihoods' Issue** - Cover Story Page 13 - Concluding Paragraph has come out incomplete due to some technical snag. The complete sentence is - "*As the mindset of commercialization of education is a reality across including the parents, now the children, childhood has become shorter and lost to a large extent.* ☹"

Contributions Solicited

If you would like to contribute an article or have something interesting to share, email or mail it to us. If it contains pictures or files please remember to attach them to the email. Please include your name, email, contact information such as phone number, location (nation) and area of expertise. If your article is accepted an editor will prepare the article for publication and may edit it for accuracy, grammar, style, and length.

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*Despite the many accomplishments of mankind
we owe our existence to six inch layer of topsoil
and the fact that it rains.*

- Confucius

Website For Women Empowerment - Digital Empowerment Foundation (DEF) and Media Lab Asia, a wing of Indian Government's Department of Information Technology developed a website dedicated to the tribal population of India with special focus on women. The idea is to empower the women through training and ICT based skill enhancement programmes for addressing their educational, health and livelihoods needs. The project - Tribal Women as Change Agent (TWCA) will identify select groups of tribal women in specific locations in India and undertake development interventions. Currently the project is being implemented in Baran district of Rajasthan.

Agro-Weather Info For Farmers - The Indian Meteorological Department in collaboration with Agricultural Universities will provide district specific agro-weather advisories to Indian farmers to boost agriculture produce and reduce losses due to the vagaries of nature. The agro advisory will include inputs like which crop is good at what time and what farmers of a district should do according to the weather pattern.

Police To Nab Yamuna Polluters - Agra district authorities will form River Police Squad to nab Yamuna polluters. The squad will keep an eye on those discharging untreated sewage and industrial effluents into the river. Cattle owners who bring their animals to the river for washing will also be included in the watch list.

Clean Development Mechanism And Carbon Trading - India's apex industrial body, ASSOCHAM will organize a summit on Clean Development Mechanism (CDM) and Carbon Trading in New Delhi in July. The idea is to facilitate adoption of cleaner technologies available in the development market, and to analyze their CDM potential in the Indian industrial sector.

Indo-Bhutan Health Corridor - The Governments of India and Bhutan are working to facilitate people living along the Assam-Bhutan border avail best medical services. The health corridor will help the poor from both the

countries to cross the borders for accessing medical services. The border areas falling in this health corridor are the Bodo Territorial Autonomous District in Assam and Samdrup Jongkar in Bhutan. The draft proposal for the corridor is prepared by Nedan Foundation, an Assam based NGO.

Britain's India Country Plan - Britain has launched an India Country Plan for 2008-2015. Under the plan 825 million pounds will be spent in the next 3 years to help India achieve Millennium Development Goals (MDGs) and assist the poorest of the poor in the country.

20 million USD To Eliminate Child Labour In India - The United States has invested \$20 million in India to eliminate child labour from hazardous industries in 21 districts across five states. The states include, Tamil Nadu, Madhya Pradesh, Maharashtra, Uttar Pradesh and Delhi. The US supported program will work in conjunction with Government of India's, National Child Labour Project. India has contributed \$20 million to this program.

US Firm To Build Roads In Rural India - An Indian American company specialized in infrastructure projects has won \$103 million contract to build roads in rural India. India Globalization Capital received the contract to build rural roads affected by rains in Madhya Pradesh.

G8 To Fight Global Warming - The Group-of-Eight industrial nations will jointly invest more than 10 billion dollars a year on research and development of technology to combat global warming. The G8 Summit will be held in Japan this year in July. The G8 member countries include - Britain, Canada, France, Germany, Italy, Japan, Russia and the United States.

UN Office On Drug And Crime (UNODC) - The new report of UNODC says that India has the largest market for contraband drugs in South Asia, with an estimated 3 million addicts. Based on 2006 figures, the UNODC report shows that India seized 157,710 kg of cannabis, which constituted nearly 3% of the total seizures worldwide.

Poor pay more bribes - One third of

the poor households pay more bribes for basic public services like police, hospitals, water and electricity. According to the Center for Media Studies poor people in India paid an estimated \$220 million in small bribes to police, postal workers, loan officers, school officials, hospital workers etc. Survey indicates that corruption is more pervasive at lowest levels of government. The police demanded more bribes than any other sector. An estimated 2.5 million poor families bribed police officials. The next most corrupt officials according to the report are those responsible for land records, housing and water. India ranks 72nd out of 163 in 2007 corruption index.

Health Insurance for Tripura - The state government in Tripura will introduce health insurance scheme for daily wage earners and those in the unorganized sector. About 742,200 unorganized labourers would be covered under the proposed health insurance scheme. According to the 2001 census, the total number of workforce in the state was 1.16 million and 95 percent of them are in the unorganized sectors like agriculture, construction, transport, shops and establishments, brick kiln, rubber cultivation, and bidi industry. Under this health insurance scheme each family, comprising five members, living below the poverty line would get free health treatment equivalent to Rs.30,000 per year. Eligible family would have to collect a smart card after registering their names with the insurance company and paying a one-time fee of Rs.30.

ADB Loan to Tackle Floods - The draft report of the US aided, North Eastern Integrated Flood and Riverbank Erosion Risk Management (NEIFRERM) Project, Assam has provided the vision and first integrated water resources management development initiative to solve Assam's flood and erosion problems in four reaches. The reaches proposed to be protected by the project are -Dibrugarh town and its adjoining Nagaghuli and Mohanaghat, Matmara and its adjoining areas in Lakhimpur district, Bonkuwal-Moriahola-Diffalupathar in the upstream of Kaziranga National Park and

Palasbari-Gumi and adjoining areas of Kamrup district. It has also provided for a carefully planned paradigm shift from living with floods to managing floods in line with national and state policies and regulations. The project is expected to facilitate the sustainable development of the floodplains of Assam in support of the overarching goal of reducing poverty. This will be achieved by substantially lowering the risk associated with flooding and riverbank erosion. This will encourage more productive land-use in selected areas of the Brahmaputra floodplains. Providing a more stable and predictable physical environment will reduce direct financial pressure on poor households and support more productive land-use and overall economic development. The risk reduction will be achieved through a combination of structural and non-structural measures, directly relevant to improving the local risk environment, planned in a participatory manner and implemented and maintained with direct community involvement. ADB will pick up 85 per cent of the project cost amounting to \$120 million.

Food Price Rise Due to Biofuels - A new study found that the increasing demand for bio-fuels in the rich nations was a significant contributing factor the current food price rise in the world. According to the study biofuels contributed nearly 30 per cent to global rise in food prices. This has pushed nearly 30 million people into poverty and endangered the livelihood of about 290 million people by creating food shortage. More and more lands are getting converted for growing biofuels crops and expanding into lands that are important carbon sinks, like forests and wetlands.

Delhi Declaration on Sustainable Livelihood - Asia Pacific countries signed Delhi Declaration on Sustainable Livelihood. The retreat was chaired by the Indian Minister of Rural Development. The participating countries include, Afghanistan, Bangladesh, India, Indonesia, Iran, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka and Thailand. The focal point was the development of rural livelihood, empowerment of rural women and so the theme of the retreat was "Sustainable Livelihood with special

focus on Information and Communication Technology (ICT) and Women Empowerment. All member countries agreed upon to take some affirmative actions on the improvement of rural livelihood in terms of policy and strategy. Some of these include promoting regional cooperation in marketing of rural products, promoting ICT to reach rural areas, promoting gender equality and the strategies to achieve them. The declaration called for simple affordable and cost effective technology with maximum coverage in rural areas. In the Declaration, representatives from different countries also reiterated their commitment to rural development, to eradicate poverty and promote gender equality in the region.

JKC in AP - A team from Royal University, Bhutan came to Hyderabad to observe the Jawahar Knowledge Centres (JKC) that run successful in Andhra Pradesh.

MSP for Paddy - The Central Government declared to provide minimum support price of Rs.850 to paddy crop.

Insurance Schemes - About 90 lakh women members of DWCRA groups and their husbands will be covered under Janasri and group insurance schemes. Children of DWRCA group members studying 9th, 10th and intermediate will be provided Rs. 1200 as annual scholarship. Call centers are set up in district head quarters to pay the insurance sum.

SC & ST Women Industrialists - To encourage scheduled tribe and scheduled caste women to grow as industrialists Andhra Pradesh government is planning to provide guarantee and 40 % loan subsidy with pavala vaddi scheme. The men will be provided 30 % guarantee and 40 % loan subsidy with pavala vaddi scheme. SC ST credit guarantee trust will be established with Rs 1000 crores.

Bank Linkages in North India - Bank of Baroda, Punjab National bank etc., in association with NABARD are offering cash credit line to Self Help groups as against loans in other parts of the country. First credit line of Rs. 25000 is offered to an SHG after 6

months of successful functioning. Subsequently on satisfactory utilization and evolution of the plan a second credit line of rupees 5 lakh is offered. Thus, a group member can access more than rupees 1 lakh even if we assume 2 to 3 rounds of rotation of this credit through the credit line.

Increase in IKP Salaries - In Andhra Pradesh the department of Rural Development declared to increase the salaries with implementing HR policy to the contract employees under Indira Kranthi Pathakam (IKP). First time contract employees salaries are brought under the purview of HR policies. Total of 6343 employees will be benefited with hike in Rs. 1000 to Rs. 4000.

IT for Rural Areas - The Government of Karnataka will soon come out with a policy to take the benefits of information technology (IT) to the people living in rural areas. When investment and technology go to rural areas, development and growth will create local jobs, check migration and improve living standards of rural folks. The government plans to set up computer training institutes in all village clusters across the state in partnership with the IT industry. There will be special package of incentives and concessions for the IT industry to set up business process outsourcing (BPO) centers in rural areas. Computer training and skill development will be imparted to the rural youth under public-private initiative with the IT industry and academia. Rural tele-healthcare in primary health centres and school health in primary schools will receive support of the IT industry for extensive use of computers, telecom network and broadband connectivity.

Vaccine for Bird Flu - Australia developed a vaccine for Bird Flu. This is good news to Asia where bird flu was rampant and also to rest of the world. The vaccine, developed by CSL Biotherapies Australia, is expected to protect humans against the H5N1 strain of influenza responsible for outbreaks of bird flu in Asia, the Middle East, Europe and Africa. Australia has earmarked US \$150 million in this year's federal budget to replenish the country's vaccine stockpile.

International Cooperatives' Day

The International Cooperatives Day is celebrated on the first Saturday of July every year. Its aim is to increase awareness on co-operatives and promote the movement's successes and ideals of international solidarity, economic efficiency, equality, and world peace. The International Day also aims to strengthen and extend partnerships between the international co-operative movement and other actors, including governments, at local, national and international levels.

The first International Day was celebrated in 1923 by International Cooperative Alliance (ICA), which is a member of the Committee for the Promotion and Advancement of Cooperatives (COPAC). Due to persistent lobbying efforts by COPAC, UN in 1995, recognized and reaffirmed that cooperatives have an important role to play in social, economic and cultural development. The UN asserted its recognition by declaring the first Saturday of July every year as UN International Day of Cooperatives.

This year - 2008 - International Cooperatives Day was celebrated on 5th of July.

Since 1995, the ICA and the United Nations through COPAC jointly set the theme for the celebration of the International Day. The Theme for international day of cooperatives 2008 is **"Confronting Climate Change through Cooperative Enterprise"**. ICA is committed to promoting sustainable development in accordance with the 7th Co-operative Principle, "Concern for Community."

Now most of us are aware that combating catastrophic climate change is a matter of pressing urgency. The main reasons for this are the rapid increase in the rate of consumptions on fossil fuels, deforestation, and release of CO₂ and green house gases (like methane and CFCs) that is more than the capacity of carbon sinks of our mother Earth. Now even if we realize and stop releasing green house gases into the atmosphere, still the earth heats up more in the coming 30 to 50 years. Though the developed countries are the largest contributors GHGs, it is the developing countries and poor nations will be at higher risk. The main concerns are decrease in the agriculture output. Desertification of lands is happening all over. Unseasonal floods are becoming more a norm than an exception. Monsoon has become erratic. Ice block at the poles and elsewhere are melting quickly. Summer ice in the Himalayan ranges is growing thinner.

Himalayas feed some of the major rivers in the Indian sub-continent. Scientists predict that Ganges and other rivers will see less and less water by 2050. If this becomes true, million of lives and livelihoods will perish.

Today the world is facing severe food crisis. Countries are in the thick of blame game. Some say its biofuels, some say its developing countries eating more and some attribute to the failure of crops. Whatever may be the reason time has come to relook at our increasingly unsustainable lifestyles.

The second concern is the rise in sea level. Even if the sea level rises to 1 meter 7 million people will be in need of rehabilitation and displacement.

According the UN Secretary General, 'Cooperatives have long fostered inclusive and sustainable approaches to economic and social development at the local level. It is in keeping with this focus, that cooperatives are expanding their development efforts creatively, into areas such as environment sustainability and carbon neutrality, as communities around the world are struggling to adapt to climate change and strengthen their resilience against its impacts'.

There are cooperatives in agriculture, energy and many other sectors. In agriculture these institutions can help farmers particularly the small and marginal farmers who can least afford any risk from climate change or otherwise. The cooperatives can help obtain high yielding varieties of food crops and promote sustainable farming practices.

They can disseminate knowledge and good practices to farmers. They can facilitate productive investments and access to improved technology.

The energy cooperatives can take up the challenge of making clean energy sources more accessible through utility consumer cooperatives. They can finance and manage clean energy technology and make it affordable to low-income groups.

Cooperatives have been active in promoting sustainable development for over 150 years now. Cooperatives are democratically controlled institutions operating with social responsibility and caring as their guiding values. These institutions can therefore play a vital role confronting climate change. Already many agricultural and fisheries cooperatives are reacting to the looming crisis. ☺



Bharatiya Agro ‘Manibhai Desai’

Born in a remote village of Gujarat and influenced by Gandhian principles, Manibhai Desai worked for rural development all his life. He established the prestigious Bharatiya Agro Industries Foundation and delivered his valuable services to India.

Youngest among the four brothers, Desai was born on April 27, 1920, in the village of Kosmada, Surat District, Gujarat, India. His father, Bhimbhai Fakhirbhai Desai, owner of 27 hectares of ancestral lands, was the leader among the farmers of the area. From him, Desai inherited his excellent managerial talents and from his Mother, Ramibahen, his strong common sense. At the time of his father's death in 1927, young Desai was in first grade at the elementary school in his native village, where he ranked first in his class. He also excelled in sports and was a leader in the Boy Scouts. Desai's middle and high school years were spent away from home in the hostel of the Anavil Ashram, the philosophic centre of the Gandhian movement. There, he came under the influence of the ashram's founder, Dayalji Desai, a close friend of Gandhi, and Brahmanand Swami, a philosopher who visited the ashram and instructed the boys in mental and physical self discipline.

In 1938, the young high school graduate enrolled in Sarvajani College, Surat, an affiliate of Bombay University. Although he studied engineering as his family desired, he was emotionally caught up in Gandhi's Quit India movement. Desai openly addressed political rallies and demanded independence. He was promptly arrested. By the time he left prison in 1944, Desai had decided to devote himself to the cause of rural development of India. However, Gandhi had directed him to complete his final year. At the same time, he began organizing students for social action. Despite his extracurricular activities, Desai was a merit scholar and in April 1945 completed his B.Sc. with a first division in Physics and Mathematics. His resolve to devote himself to rural development, however, had never weakened.

Gandhi accepted Desai as a disciple in principle, but insisted him to return to his village to bring social change. However, four months later he received a letter from Gandhi calling him to Sevagram Ashram in Wardha district of Maharashtra, the headquarters for the Gandhi's activities. Shortly after his arrival at Sevagram, a virulent outbreak of cholera hit the district. Desai volunteered.

In the years that followed, Desai became very close to Gandhi. Gandhi chose Desai to establish the nature cure ashram and run a development programme in Urulikanchan, Maharashtra, which he considered central to his plan. One of his priorities was to organize the young people not yet spoiled by indolence or anti-social activities. A youth culture centre which encouraged sports and dramatic performances was one effort; a secondary school was another. He began



the school, Mahatma Gandhi Vidyalaya, in 1950, teaching 30 boys. Rated nationally as one of the best schools in a rural area, Mahatma Gandhi Vidyalaya today has some 90 well-qualified teachers to instruct 3,000 students in its three categories of study-academic, agricultural and industrial.

Desai also started a Cooperative Bank to wean the villagers away from the usual usurious moneylender. Later 36 ha of land were cleared and the landless families formed a Joint Farming Society. They insisted that Desai also join the Society. Thus, as a landless labourer, this former landowner became a member of the Joint Farming Society and was elected its Chairman.

Desai continued his experiments on the ashram's own land which had now increased to 33 ha. Since agriculture per se was generally uneconomical because of the scant rainfall, Desai experimented with horticulture as a means of making the ashram self-sufficient and for cash crops for farmers in the adjacent villages. Research indicated that the dry climate and light soil offered prospects for grape cultivation. At the same time with his help, some 500 smallholders applied for a loan of Rs. 5.3 million to invest in the Cooperative Sugar Factory, which proved a success from the beginning. It soon developed numerous branches and began engaging in other community projects, e.g. schools, hospitals and water resources. He founded the Bharatiya Agro Industries Foundation (BAIF), which was registered as a Public Trust on August 22, 1967.

Desai held positions as Director of the Maharashtra State Irrigation Development Corporation and the Gujarat State Rural Development Corporation. He was member of the board of the All-India People's Action for Development and was on the governing board of Mahatma Phule Krishi Agricultural University, from which he received an honorary doctorate in 1977.

The President of India recognized his services in 1968 by honouring him with the Padma Shree Award. In 1982, he received the Ramon Magsaysay Public Service Award. In 1983, Desai was awarded the prestigious Jamnalal Bajaj Award for pioneering research on the application of Science and Technology for rural development, and in 1986, the Bio-Energy Society of India gave him its first award for dedicated, dynamic and innovative work in the field of bio-energy and received the Indira Priyadarshini Vrikshmitra Award for afforestation and wastelands development.

Desai has established himself as an all-rounder in rural development with his diverse innovations. India is undergoing agrarian crisis today. Agricultural productivity has come down, rural India is suffering, food prices are sky rocketing. We need more visionaries like Desai today. 🌱

Drip Irrigation

The concept of Irrigation is as old as the human civilization. Water is applied to crops through different methods viz. Flood, Sprinklers, Drip, Sub Surface Pressurized Systems etc.; Flood Irrigation is the oldest and most common. This method of irrigation consists of diverting a stream from the head of a field into furrows or borders and allowing it to flow across the slope by gravity.

The overall efficiency of an irrigation system is gauged by the relationship between the quantity of water that has actually wetted the root zone of the crop and the quantity of water released from the source. Normally Surface Irrigation methods are poor in their irrigation efficiency. About 60 to 70% of water released from the source is lost on the way by way of seepage and evaporation.

Efficiency parameters	Methods of Irrigation		
	Flood	Sprinkler	Drip
Conveyance efficiency	40-50 (canal) 60-70 (well)	80-90	100
Application efficiency	60 -70	70-80	90
Surface water	30-40	30-40	20-25
Overall efficiency	30-35	50-60	80-90

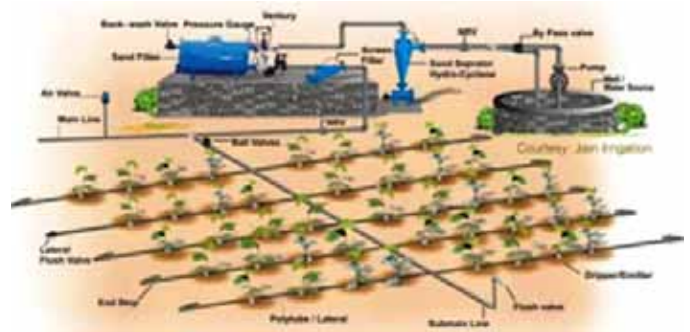
In spite of its low efficiency levels flood irrigation is still popular among farmers mainly because the initial investment is low and the expenditure on overhead and maintenance are negligible.

Presently, the problem facing the country is not the development of water resources, but their management in a sustainable manner. The need is to economize water in agriculture and to bring more area under irrigation, reduce the cost of irrigation on unit land, and increase the yield per unit area and unit quantum of water. This can be achieved by adopting Micro Irrigation systems.

Micro Irrigation not only improves the water productivity, but also results in arresting the water logging, checking salinity problems of the canal command areas, checking the receding water table and controlling the deteriorating water quality.

One of the popular micro irrigation system's is Drip Irrigation System. Drip Irrigation is based on the fundamental concept of irrigating only the root zone of the crop rather than the entire land surface. The system comprises a network of pipes including main, sub main and lateral lines along with suitable emitting devices spaced along the lateral lines. Water is applied at frequent intervals in controlled quantities as per the plant requirement. Water soluble fertilizers and nutrients can also be applied through drip irrigation.

Drip irrigation results in improved yields due to controlled application of water thus maintaining the right soil moisture levels. Wastage of water during transmission is less in drip



irrigation method. Also drip method wets only the root zone and not unwanted areas. This helps in disease and pest control as well. Its proved that drip method saves 50 per cent more water than flood irrigation. Further it also results in efficient application of fertilizer which can be applied through drips. Drip methods resulted in uniform plant growth with consistent quality. Low pressure requirement of drip irrigation also conserves energy. Drip irrigation is more suitable for irrigating difficult terrains. Because one can control water application rates, drip irrigation can work with different soils.

For a marginal farmer a customized drip irrigation system called gravity and barrel irrigation works well. The system is ideal for a land size of 250 sq mts including backyard kitchen gardens. The system consists of a 1000 liter capacity tank along with a drip line system and a filtration system. The total equipment cost will be Rs.10,500. There are instances where farmers have earned Rs.9000 annually from kitchen garden. Sometimes the earnings were as high as Rs.25000.

Arthika Samatha Mandal (ASM), an NGO in AP has been working with farmers in Nalgonda district on integrated farming practices. The farmers were initially skeptical of taking up new methods of agriculture. ASM organized many awareness workshops to educate the farmers about improved methods of agriculture including drip and sprinkler irrigation systems. The farmers were taken to Bangalore for exposure visit. A demo project was done to successfully demonstrate the integrated farming practices including new irrigation techniques. Gradually farmers evinced interest. ASM facilitated the setting up of Farmers Club and created a forum for exchange of agriculture knowledge and networking with Mandal Agriculture Department. The farmers have come to an agreement to share the minimum water yield from the tube wells on their land to minimize the expenses in all aspects.

As of today 200 farmers came forward to adapt drip and sprinkler method of irrigation in 60 acres of land. Farmers are using drip and sprinkler for vegetable crops and fruit bearing crops. This is helping them to use less water for the same quantity of produce and use less electricity. It is not only the water conservation measures that are adapted by the farmers, but also vermi compost, non-chemical pest management, improvised cropping patterns and crop rotation. An integral way of agriculture is helping them to have higher produces. 🌱

Elephant and The Six 'Blind'

Monsoon has set in. While some areas are getting more rains and some others are not getting good rains!

The month that has gone by included our trips to explore ways and means to enhance livelihoods of the poor in Sagar Island in Sundarbans, going through Tushar Kanjilal's 'Who killed Sundarbans?' and interactions with people who 'know' Sundarbans.

SHG movement and MFIs have continued to engage us. We have moved a bit on the baselines for various segments of the Cotton Textile Supply Chain. We are seeking people's reactions to the rising food prices. We continued our engagement with the community organizations to look at livelihoods interventions as their projects.

We have moved further with the Universities and Management Institutes. One University is considering a post-graduate diploma in livelihoods. One institute is seeking our help in offering 'livelihoods management' in their flagship program. We continued to receive demand for self-learning livelihoods programs. We began Akshara Adhyayan to specifically address this need.

Summer, followed by sultry windless days, followed by storms – the nature has ensured that we take rest for a while.

Sagar Islanders engage in agriculture as farmers and labour. Major crops include paddy, betel vine, chillies, potato and vegetables. Coconut, palm, date palm, and banana plantations are abundant. Marine and cultured fisheries, dry fish, duckery, shrimp seed collection, dairying, goats and sheep rearing, bidi rolling, shell craft are the other livelihoods, apart from transport, trade, education and related services. The scope is in increasing the crop intensity with rain water harvesting, expanding the acreage in remunerative betel vine, fisheries etc., and collectivization (of purchases, aggregation, storage, value-addition and sales). Vocational training will also be important.

Sagar Island exploration has culminated in figuring out a way forward for enhancing the livelihoods of the poor. Some elements of the way forward include organizing women and youth around savings, credit and micro-insurance into SHGs and their higher order federations; undertaking participatory livelihoods planning appreciating livelihoods current reality, gaps and opportunities; facilitating bank linkages and convergence with other programs to realize these plans; organizing people around livelihoods activities; organizing shops that sell essential items; building skills of the youth for meeting the services required; exploring employment



opportunities outside and providing training; and building human resources for working in the people's institutions.

Perspectives

G. Muralidhar

One area that has been troubling is how we could ensure that the people whose lives and livelihoods are threatened and affected are involved in planning, managing and

maintaining the plans and planned elements. The case in point is embankment breaches. This is the same situation in many aspects in many an ecologically fragile and marginalized zone. We, the blind, are groping for solutions without understanding the 'elephant'. How can we, if we don't make all the blind to come together and unravel the 'elephant' first? How can we, unless we reach the 'ant' when the 'fish' does not dry-up (in the seven fish and the ant story)?

The most prominent issue is how we could offer 'metafishing' skills to the community, in addition to offering 'fishing' skills, in stead of offering fish. This is the need of the hour. The entire project has to gear up for this effort. And I understand that this takes time 5-10 years. This can begin with appreciation of current reality and pooling up knowledge-skills-resources in people's domain with K-S-R in our domain and outsiders' domain. This in turn generates a variety of informed choices for the community to choose from. The community implements the plan so developed. In these iterative and repeated rounds, the community acquires metafishing skills and, I guess, learns to adapt to the changing needs and changing contexts.

Visit to UP and Bihar, as usual, confirms the issue of the equity that is plaguing them. These areas have fertile lands and water exists. Two crops are normal. But these resources are in the hands of the non-poor. Mechanisation has peaked. Except transplantation, most farm activities are mechanized. Poor are typically landless or have a fraction of an acre. The credit access is weak. The interest rates are as high as 1000% per annum. Other terms are equally harsh. Majority





the village, even if it is a weaving village; livelihoods interventions are essentially people's projects; the needs of the poor extend beyond financial capital; and there is a need to bring all the blind together to unravel and address the 'elephant'. It has also provided us to approach



people for grants, debt and equity for taking this effort forward. I am sure we will have more people interested in us now, thanks to Srijan 2008.

of the poor are still illiterate. Ill-health consumes the most of the family's expenditure. Gender disparities are huge. Migration is not uncommon. Civil Society efforts are, at best, weak.

MFIs have started to enter these states. SHG movement has begun. These are facing stiff resistance from the non-poor. Large Government Poverty Reduction Projects, like in South, have not been planned, except in Bihar. Under the circumstances, efforts by NGOs are important. I could visit an NGO which has taken up this task on a scale. Picking up the principles and processes from the largest poverty reduction project of the country, AP Rural Poverty Reduction Project, it builds SHGs, their federations at the cluster level and the block level. In the absence of a good act like the Mutually-Aided Cooperative Societies' Act in other states, they are contemplating Associations at cluster and block level under Society Registration Act. Their well-orchestrated seven principles – weekly meetings, weekly savings, credit transactions, repayment in installments, books, plans and activists - and seven steps – identifying the poor and poverty, forming groups, building capacities, mobilizing capital, identifying appropriate livelihoods options, identifying and taking up human and social development activities and managing risks – are allowing them to roll-out group formation in 4-5 districts. Interestingly, they could secure cash credit limit to the SHGs from the banks, initially Rs.25000 and after six months of further transactions, grading and planning, Rs.500000. In 2-3 years, this cash credit limit can ensure each member an access to more than Rs.1.0 lakh for investing in livelihoods activities. Significant amount, in deed! No other project/organization in the country could ensure access to such a high magnitude amount. NABARD and other banks have promised this CCL and delivered. This effort is in need of funds to mobilize poor into institutions (groups and federations) and build their capacities. **I am wondering whether somebody would like to chip in and support this initiative to go to scale.**

Recognition to the effort and plan of building Pochampally Chenetha Kalanetha Collectives as the Standard Chartered Best Business Plan of Srijan 2008 has endorsed the following: one needs to work with all the poor, once entering

June brings monsoons in India. Vagaries of monsoon have big effect on the dry lands. We are forced to look at dry land agriculture as an important sub-sector within agriculture. Dry land agriculture engages more than 30 million families in the country (3 million in AP). On this land, the rainfall is scanty. This rain is not harvested except for some watershed efforts, of late. The earlier tanks have been silted, breached and lost their functionality. Groundwater has depleted. The productivity is low. The dry-land research does not attract the attention of the scientific community so much, although ICRISAT and CRIDA are doing a bit in this regard. The minimum support prices do not generally exist for dry-land crops. Fortunately, most of these crops are food crops. Horticulture crops are finding some place.

Since about half of the Indian families are engaged in dry-land agriculture, it needs attention. It can not be ignored. The per unit land productivity, per unit water productivity and proportion of consumer rupee realized by the producers have to go up and the costs of cultivation vis-à-vis realization has to come down. I hope these will be the agenda of the scientific community, civil society engaged in agriculture and NRM, and government (s). The risks of dry-land, which are very high, with productivity ranging from 0-100%, we need to invest in building risk reduction and diversification mechanisms. **It may have to be reiterated here that the dry-land crops contribute significantly to the food security of the poor.**

Since we do not want to forego the future food security in India, we cannot ignore dry-land agriculture any longer. **When crisis envelops us, what matters the most are air, water and food.** The rest is a matter of opinion really.

With this in context, Akshara works closely with the field partners in ecologically fragile and marginalized areas. It inducts livelihoods workers for them. It builds capacities in them. Where, there are no partners, it attempts field stations. Importantly, it disseminates best practices to the workers, people and to children.

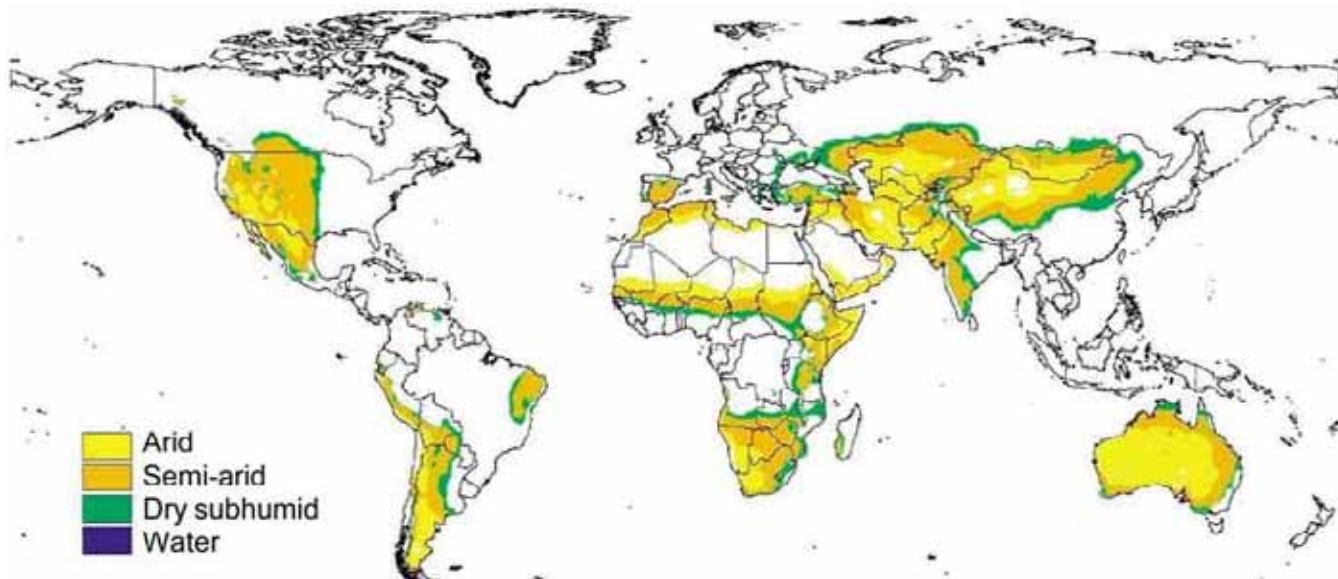
I invite more and more people to pursue this, wherever they are, in their own way.



Rainfed Farming

Agriculture means not just food security, it is not just about productivity and contribution to country's GDP. Agriculture also means the livelihood of more than 60 per cent of the people in India. Of this 60 per cent about 400 million depend on rain-fed/dry land farms. About 68 per cent of the net sown area constitute rain-fed regions in India. Characterized by water scarcity, poor infrastructure, low productivity and inadequate policies, about 30 million rain-fed farmers are yet to see the silver lining around the dark cloud. The poverty of the country is mostly in the rain-fed areas.





Dry lands are home to more than 900 million people in this world! This is despite the fact that these regions have low agricultural productivity. The erratic nature of rainfall places severe restrictions on the ability of the dry lands to produce agricultural crops. Farming in these areas has huge component of risk. Cost-risk-return equation is highly unfavorable to dryland farming communities today.

Dry lands often experience prolonged periods of dryness. The potential evaporation of water from the land in these areas exceeds the rainfall. The soil is often alkaline or saline. About 47 per cent of the world's land area is dry.

There is no universally accepted definition of dry lands. However, one widely accepted UNESCO classification of dry lands divides these lands into hyperarid, arid, semiarid and dry subhumid zones. The hyperarid zones do not support any kind of crop growth without irrigation. They are mostly in Saharan, Arabian and Gobi deserts. The arid zones that receive about 200 to 300 mm rainfall, cover about 15 per cent of the land surface. With sparse vegetation the land is mostly used for grazing. Africa and Asia account for most of hyper arid and arid zones in the world. Semi-arid zones are more extensive, have highly seasonal rainfall regimes and receive about 500 to 800 mm. Drier areas in these zones support grazing while rainfed cropping is practiced in wetter parts. In the dry subhumid zone rainfed cropping and animal husbandry is widely practiced.

In India about 400 million depend on dry lands/rainfed lands for their livelihoods. According the Union Ministry of Agriculture rainfed regions in India account for 68 per cent of the total net sown area which is about 86 million hectares. Most of rainfed regions are concentrated in 13 states in India including Maharashtra, Madhya Pradesh, Rajasthan, Gujarat, Karnataka, Jammu & Kashmir, Punjab, Haryana, Uttar Pradesh, Andhra Pradesh, Tamil Nadu and West Bengal . There are about 30 million dry land farmers in India.

Rainfed regions are drought prone. In India these regions suffer from drought at least once every 3 years. Western and

Eastern Rajasthan, Gujarat, Western Uttar Pradesh, Tamil Nadu, Kashmir and Andhra Pradesh are more vulnerable to droughts.

Rainfed crops account for 48 per cent of the total area under food crops and 68 per cent of the area under non-food crops in the country. Important crops grown are cereals, pulses and oilseeds including jowar, bajra, maize, millets like ragi, foxtail millet, pearl millet etc, blackgram, greengram,



redgram, bengalgram, soyabean, groundnut, sunflower, castor, cotton, chillies, turmeric etc. About 73 per cent of the area under cotton is rainfed. And around 60 per cent of the livestock in the country are concentrated in the dryland areas.

Considering the diversity of crop wealth in dryland areas one would assume reasonable level of prosperity here. However the reality portrays a contrasting picture. The dry land farmers at the left end of the value chain are poor and marginalized for the most part. Dry land regions are characterized by water scarcity, fragile environments, drought and land degradation caused by low rainwater use efficiency, high population pressure, poverty, poor infrastructure and inappropriate policies. Dryland farmer



owning more than 10 acres of land can be reeling in poverty compared to their counterparts in wet areas owning just about 1 or 2 acres of land. Green revolution left dryland areas untouched. All the investments towards research and infrastructure development were directed to promote agriculture in fertile and water abundant areas. High yielding varieties were developed in crops suited to areas with water facilities. When the country was on the fringes of starvation and famine that might have been the logical way forward to quickly increase food production and avert possible disasters. But unfortunately even after India attained self sufficiency in food grains, drylands continue to be neglected.

Today we are facing the heat of rising food prices and food shortages. Government grain buffers are shrinking. Agriculture as a whole is facing crisis with low productivity, decline in farmers' incomes, market volatility, impact of globalization etc. We continue to hear news of farmers suicides from dryland areas like Anantapur in Andhra Pradesh, Vidharba in Central India and other regions, mainly due to indebtedness. It is a sad paradox that on one hand we have food shortages and increased demand for food and on the other hand the producer of food (the farmers) remains

poor and increasingly finds the livelihood of agriculture unviable. This trend might seem to be defying logic of demand-supply-price complex at the farmer level. This is because there are too many players in the value chain between the producers and consumers. To ameliorate the situation the government of India has recently come out with a Rs.60 + crore debt waiver scheme for farmers across the country. But the farmers in dryland areas have little to benefit as the scheme has limited the beneficiaries to one or two hectare holding. The loan waiver scheme did not have any special provision for dry land farmers.

A careful look at the dryland crops reveal a changing trend from cultivating food crops to more of non-food crops. In fact some "minor cereals" (native millets) like foxtail millet, pearl millet, pigeon pea are disappearing for no demand though they are highly nutritious and can be an excellent dietary supplement. For instance ragi is a grain of great nutritive value considered more sustaining to people than any other grain. Coarse cereals unfortunately carry with them the stigma of poor man's diet. Therefore people have embarked on the process of "sanskritization" towards rice and other soft

Growth Rate in Rainfed Regions in India

(NSDP - Net State Domestic Product)

State	Growth rate in NSDP agriculture (%)		% of rain fed area	% of irrigated area
	1984-85 to 1995-96	1995-96 to 2004-05		
Punjab	4.0	2.16	3	97
Haryana	4.6	1.98	17	83
UP	2.82	1.87	32	68
TN	4.95	-1.36	49	51
WB	4.63	2.67	49	51
Bihar	-1.71	3.51	52	48
AP	3.18	2.69	59	41
J&K	2.18	3.25	59	41
Gujarat	5.09	0.48	64	36
Rajasthan	5.52	0.3	70	30
Orissa	-1.18	0.11	73	27
MP	3.63	-0.23	74	26
Karnataka	3.92	0.03	75	25
Maharashtra	6.66	0.1	83	17
Kerala	3.6	-3.54	85	15
Assam	1.65	0.95	86	14
HP	1.64	5.51	81	19
All India	3.62	1.85	60	40

cereals. This is mostly because of lack of awareness and their unfamiliarity in urban areas.

Cash crops like cotton, sunflower, turmeric etc are taking priority in these areas because of relatively better margins. Also crops for bio-fuel like maize are gradually taking precedence. All these trends threaten the food security of the people in dryland areas in particular and people across in general. Pulses like arhar, greengram, blackgram, masur etc have ready markets but they are short of supply. Most of the area under these crops is resource poor and yields are low. This gives little incomes to farmers compared to oilseeds and cotton.

Another disturbing influence on agriculture is the rapid urbanization and proliferation of SEZs. Agricultural lands are getting converted for non-agricultural purposes towards housing, mining or industrial development. SEZs are targeting single crop lands.

Government Public Distribution System (PDS) distributes wet land produce like rice, wheat etc. Some sporadic attempts were made in the past to include coarse cereals in PDS and popularize value added health foods but that did not take off well. Other government schemes like mid-day meals program, food-for-work program etc also distribute rice. Rs.2 kg rice scheme in AP caused a huge shift from

native to soft cereal. It may be time to relook at these and integrate dryland food grains into PDS and other schemes in a localized and decentralized manner. Andhra Pradesh alone spends about Rs.250 crores on the mid-day meal scheme. If even Rs.100 crore are spent on procurement of jowar and other dryland millets, nearly 2 million tonnes of such grain can be purchased.

Due to high prices of chemical fertilizers and pesticides many dry land farmers in India use organic matter for inputs. One can see this as a blessing in disguise to some extent. The growing middle class and neo-rich in urban areas are becoming more and more health aware. They are looking for organic food in retail shops. They are also looking for non-soft cereals. We see restaurants in cities advertising ragi balls, jowar and bajra roti as delicacies. It may be the time to capture this demand. The potential of the dryland areas need to be unleashed. The country has to invest in discovering high yielding, pest resistant varieties in dryland crops. We cannot continue to neglect the drylands that occur in 177 districts of India. It is time for a second green revolution with focus on dryland areas without creating negative consequences to the environment.

CGIAR (Consultative Group on International Agricultural Research) scientists are working to shorten the growing

Government Schemes

The government through its schemes has planned to develop 12,03, 863 sq km dryland area in the country— 7,45,914 sq km in 16 states under the the Drought Prone Area Programme (DPAP) and 4,57,949 square km in seven states under the Desert Development Programme (DDP).

DPAP is being implemented in Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal, covering 972 blocks in 185 districts.

Since the inception of the scheme in 1995-96 till January 31, 2008 about 27,439 projects covering an area of 13.7195 million hectare have been sanctioned and Rs 2,739.84 crore was released.

The DDP being implemented in Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka and Rajasthan covering an area 4,57,949 sq km in 235 blocks in 40 districts. The scheme includes hot arid non-sandy areas, hot arid sandy areas and cold arid areas.

The implementation of the government's two major schemes for dryland areas show that many sanctioned projects are yet to be completed and have overshot the timeframe. Mid-term evaluations conducted by independent agencies show some success stories in pocket areas, but more needs to be done to improve the lot of dryland farmers.

season of all dryland crops and develop better water management methods. The green revolution succeeded in shortening the growing season of irrigated crops thus allowing farmers to harvest more times in a year.

Modern retailing is creating more and more avenues for direct marketing. For instance e-choupal purchases its produce directly from the farmers thus greatly shortening the value chain. But retailers like to deal with small number of large farmers for volumes and uniform quality. Dryland farmers have low production volumes, small marketed surplus and dispersed holdings and therefore lost in the modern retailing game. One way forward can be to build product-based collectives of dryland farmers and provide them with backward and forward linkages.

There is huge infrastructure gap in dryland areas. Major chunk of investments go into wet areas to improve irrigation and other infrastructure. Simple check dams to harvest rainwater can be built in dryland areas. There can be community maintenance funds and maintenance can be entrusted to the communities. In Dahod district, a major dryland area in Gujarat, tribal cooperatives manage the check dams. Check dams are not new to India. For instance the Grand Anicut was built by Chola king in the Cauvery river delta in Tamil Nadu during 2nd century.

Credit availability to dryland farmers should improve. Green revolution calculations are used to determine credit across. Dryland crops therefore do not get sufficient credit either as scale of finance or as overall quantum of support. Loan terms and conditions in the drylands should integrate the risk of uncertain rainfall as well as insurance for such failure. Credit cycle should be different for irrigated areas vs rainfed areas, longer the cycles the better for drylands.

MSP still remains a grey area for many of the dryland crops. This needs immediate attention. According to our agriculture scientist M.S. Swaminathan any MSP should include cost of production + 50 per cent of the cost of production. Otherwise agriculture cannot become a viable livelihood option. A recent NSS survey states that 50 per cent of the farmers want to quit farming. There is huge hue and cry about

subsidies to farmers in developing countries. But one has to be aware that farmers in the US and Europe get some of the largest agriculture subsidies in the world. In Switzerland for instance, 70 per cent of the farming is subsidized by the government. Can our farmers, more so the dryland farmers withstand such unfair competition? Globalization has created more of free trade and less of fair trade!

M.S. Swaminathan recommends the setting up of Special Agricultural Zones. These can be on the lines of collectives of poor farmers that are given the same opportunities and benefits as the SEZs of the rich. These collectives can take up value addition activities. Best practitioners can be identified and can disseminate knowledge through these collectives.

Dryland farms are overpopulated. Its important to create significant non-farm incomes to the farmers. Post harvest technology needs significant improvement. Youth can become valuable players in value addition activities. They need trainings, they need opportunities to build their skills.

Majority of the land in India comes under arid and semi-arid zones. Its important to invest resources to convert these huge tracts into food baskets of the country in a sustainable manner with due regard to environment. Time is ripe to revisit dry land areas with a workable framework which can result in significant increase in the net incomes of the dryland farmers. The progress in agricultural sector should be measured not just in terms of increase in productivity or increase in exports but increase in the net income of the dryland farmers. ❁



Those Who Believe in Land Will Prosper!

Agriculture is a growing sector. But, still there are two sides to the coin. We hear stories of both success and failure. Some say agriculture is like a gamble and climate has a significant role to play in this game. For others, agriculture can reap rich benefits and increased incomes with right weather conditions and proper and timely planning and decision making. Meghavat Chandrunayak's story proves the later argument.

Meghavat Chandrunayak was born in agriculture family. He practiced the same livelihood growing up. Today Chandrunayak is reaping good returns from his land and is seen as the best practitioner in his village.

Chandrunayak hails from Moosapet village in Narsapur mandal of Medak district in Andhra Pradesh. Having come from agriculture family he got exposed to this sector very early on in life. He grows different varieties of crops in his land. 'livelihoods' team spent some time with Chandrunayak to get more insights into his success story.



Question: Please tell us about your family.

Answer: We are a family of 5 members including myself, my wife, two sons and one daughter. My daughter got married 2 months ago.

Q: For how long you have been doing agriculture?

A: Ours is basically an agriculture family. My father was engaged in cultivation. In my childhood I used to go with my father to the field and work with him. We also had bullocks for help.

Q: What have you studied?

A: I have never been to school. I cannot read or write. Our father taught us only agriculture and associated works since childhood

Q: How have you been able to do agriculture better than others in the village and reap increased output?

A: If the farmer has his own bullocks that he can use for working in the fields that will bring down the expenditure to some extent. This will also help in practicing improved methods of agriculture. In my field I work with my own bullocks for the most part. Only the first time we plough the field using tractor. Later on we only use bullocks. This way I reduce my expenses.

Q: What crops do you cultivate mostly?

A: I cultivate sugarcane and paddy mostly. I have 5 acres of land. I cultivate sugarcane in 3 acres and paddy in 2 acres. I have 2 bores pumps in my land. This water is sufficient to irrigate 4 acres of land. By God's grace the water is always available in the bore pumps.

Q: What do you do to protect your crop? How much is your output?

A: In our village we face huge problem from wild boars. By the time the crop is ready for harvest these boars damage

them by stepping on the crops. Therefore during these times I stay at the field in the night and guard my crop. I protect my land dearly. Right from the day the seeds are sown till the day we get the harvest in hand I visit the field everyday with fail. I personally take care of all the works in the field. I get about 30 bags/70 kgs of paddy per acre and about 30 tonnes of sugarcane per acre.

Q: Are your children studying or did you engage them in agriculture?

A: My kids are studying. One is in 7th class and one is in 9th. My daughter is also educated upto 10th class. My kids engage in

field work in leisure time and during vacations. That is the reason why they get education both from school and from agriculture. I will let my children study how much ever they want and whatever they want.

Q: Which crop do you find more profitable?

A: Two years ago I was reaping good profits on sugarcane crop. In one year I could make a net of Rs.4,00,000 after all the expenses. I purchased one more acre of land with the money. The money was also used to meet the marriage expenditure of my daughter. However for the past two years I am not able to make so much money on sugarcane.

Q: Did you receive any help from the government?

A: I purchase all the inputs including seeds, pesticides, fertilizers from the traders. I get all the agricultural implements done by myself. Thus far I have not taken benefit from any government program or any subsidy from the government. Off late I have not been able to get quality seeds from the traders. I think it would be so much nice if the government can provide inputs to the farmers regularly and consistently.

Q: Where do you take loans for your agriculture?

A: I get all my loans from Cooperative Bank. I repay the loans with interest regularly and on time. The bank manager told me that I would get benefitted up to Rs.5000 under the recent loan waiver scheme.

Q: What would be your suggestion to your fellow farmers?

A: Those who believe in land will prosper. However every farmer should use their own time, energy and resources as far as possible to reduce costs. Also one has to be diligent in choosing good seed. The application of pesticide should be on time. If one can follow all the good practices one can manage agriculture with low costs and high outputs. 🌱

Red Gram

Red gram also known as pigeon pea or, arhar or, tur dal is a protein rich staple food. It contains about 22 percent protein, which is almost three times that of cereals. It is particularly rich in lysine, riboflavin, thiamine, niacin and iron. Red gram supplies a major share of protein requirement of vegetarian population in India.

Red gram ranks sixth among pulses production in world and major legume crop. Average world production of red gram is at 3.0 million tonnes in the last six years (2000-05). The area under cultivation is stagnant at 4.5 million hectares in the same period. Red gram is drought resistant and can be grown in areas with less than 650 mm annual rainfall. World production of red gram is estimated at 46,000 km². About 82% of this is grown in India.

India is the largest producer and consumer of red gram in the world, constituting 75% of world production and consuming 90 % of the world production. Other major countries are Myanmar, Kenya, Uganda and Malawi. Red gram accounts for about 20 percent of the total pulse production of the country. India annually imports 2-3 lakh tones of which 95% is from Myanmar.

India annually produces about 2.0-2.5 million tonnes and the production has been stagnant in the past 10 years. The shift in cultivation from pulses to commercial crops and lack of technological innovations to increase yields has hindered the rise in output. The major producing states are Maharashtra, Uttar Pradesh, Orissa and Karnataka. Among these, Maharashtra is largest producer of red gram which constitutes about 34% and these four states contribute nearly 70% of total output in the country.

The major trading centers of red gram are Mumbai, Indore, Lathur, Delhi, Harpur, Gulbarga etc. The produce normally move from producing states namely Maharashtra, Uttar Pradesh and Karnataka to consuming centers like Delhi, Chennai, Hyderabad etc. The marketable surplus in tur is 60-70% in major producing states and purchased by millers for processing. The produce from producing centers to consumption places goes through various channels. These includes, from producer to village trader or wholesaler or dal miller or commission agent. From these middlemen produce moves to milling centers for processing and the processed dal is channeled to retailers through wholesalers and finally to consumers. In this process commodity gets value addition through milling, storage and transportation costs.

In addition to being an important source of human food and

animal feed, red gram plant is a mini-fertilizer factory as the crop has unique characteristics of restoring and maintaining soil fertility through fixing atmospheric nitrogen in symbiotic association with rhizobium bacteria present in the root nodules. Being a drought resistant crop, it is suitable for dryland farming and predominantly used as an intercrop with other crops like Cotton, Sorghum, Pearl millet, Green gram, Black gram, Maize, Soybean, Groundnut.



In order to reduce the losses, threshing and winnowing operations are required to be completed within a short period through improved equipments. Due to using old and outdated methods of dal milling, the loss at this stage is up to 1 percent. Due to improper and inefficient methods of storage, the loss up to 7.5 percent is estimated during storage. Quantitative losses result from spoilage, infestation by insects, rodents or birds.

Expenses	
Seed	350
Land preparation (4 times)	2100
Fertilizers (DAP 2bags =2 x 500)	1000
Urea 1 bag 1x250	250
Pesticide	750
Labor cost Seeding, weeding (20 labour x Rs 60)	1200
Harvesting (5 labour x Rs100)	500
Tying (5 labour x Rs100)	500
Seed separation (5 labour x Rs100)	500
TOTAL	7150
Income (approx 6 quintals x 2000)	12000
Profit	4850

Nutritional values of edible portion per 100 gm of Red Gram

Crop	Energy (cal)	Protein (gm)	Fat (g)	Ca (mg)	Fe (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vitamin A value (mcg)
Red Gram	335	22.3	1.7	7.3	5.8	0.45	0.19	2.9	1.32

Source: Nutritive Value of Indian Foods by Gopalan et al., Indian Council of Medical Research Publication

It is important to adopt grading for getting remunerative prices inter-alia to avoid financial loss. Other measures include using B-Twill Jute bags or HDPE bags to avoid transport losses, using good packaging materials for storage and proper storage techniques. Avoid use of hooks by labour during handling. Timely harvesting ensures optimum grain quality and consumer acceptance. The best time to harvest the crop, when large (80) percent of the pods are fully matured. Keep the harvested red gram separately for each variety.

- ⇒ Information access on input costs and market details.
- ⇒ Facilitate credit and bank linkages and forward linkages with wholesale markets, mills, retail markets, hostels etc
- ⇒ Provide technical information on non chemical pest management practice through resource institutions.
- ⇒ Provision of infra structural facilities such as storage, drying platforms and transport facilities.
- ⇒ Provide quality control skills
- ⇒ Collective marketing

In India normally adulteration/ contamination in agriculture produce occurs either intentionally for financial gain or incidentally due to carelessness and lack of proper hygienic conditions during processing, packing, storing, transportation and marketing. The adulterations commonly found in red gram are Khesari dal (mixed in red gram), Metanil yellow, Lead chromate(colour the dal) .

Limitations:

Gaps:

- ⇒ No availability of traditional loan system
- ⇒ No scientific knowledge on seed treatment
- ⇒ Lack of awareness on the complex mixture to be applied based on the soil testing
- ⇒ Timely application of fertilizers, pesticides and weed removal is not found.
- ⇒ Lack of pest identification on crop.
- ⇒ No forward linkages with red gram mills and markets
- ⇒ Farmers usually do not grade their produce, as a result they do not get remunerative price in the market. Farmers should adopt standards.
- ⇒ Produce is not graded before marketing which is fetching them less price.
- ⇒ No collective marketing.
- ⇒ High yielding varieties are not used.
- ⇒ Lack of adequate market information to farmers

- ⇒ High interest rate on loans
- ⇒ Inadequate infrastructure facilities like storage at various levels. Forced sale by farmers is seen without proper storage
- ⇒ Government subsidy is restricted to seeds only
- ⇒ Holding capacity of the farmer very less. Hence produce sold immediately after harvest at low price.
- ⇒ Decision is taken by male on lobbying costs.
- ⇒ No external support on technical or, scientific information
- ⇒ Adulteration in inputs
- ⇒ Commission rate to local traders is more than the government rates.
- ⇒ Inadequate transportation facilities in the villages forces the farmer to sell his produce to middleman right at the farm
- ⇒ Too many players in the value chain

Best practices:

Interventions:

- ⇒ Collective purchase of inputs to break the cycle of money lender and distress sale
- ⇒ Increase awareness on application of Bio fertilizers.

- ⇒ Use of pest resistant varieties
- ⇒ Seed treatment with fertilizers
- ⇒ Encourage NPM practices
- ⇒ Cleaning the dust and removing the stones from the produce.
- ⇒ Grading
- ⇒ Timely weeding.
- ⇒ Selling in whole sale market.



Value-chain of Red Gram

Inputs	Pre Production	Production	Harvesting	Marketing
<ul style="list-style-type: none"> * Seed * Fertilizer * Pesticide 	<ul style="list-style-type: none"> * Land preparation * Fertilizer application * Sowing 	<ul style="list-style-type: none"> * Weeding * Pest removal from plant * Pesticide application 	<ul style="list-style-type: none"> * Picking * Output is about 6 quintals per acre 	<ul style="list-style-type: none"> * Drying the crop for 1-3 days * Tie them straws in small bundles * Prepare land for seed separation * Dry the bundles for 4-10 days * Seed separation * Packing * Transportation

Value chain analysis is examination of different stages in a good or service till it reaches the customer. In the value chain analysis, backward and forward linkages are studied for appropriate interventions. The idea is to identify gaps and possible

LEAP

Any livelihoods intervention must be based on the appreciation of the current reality with respect to the

- ⇒ **Four Arrows** - income, expenditure, employment and risk,
- ⇒ **Six Capitals** - natural, physical, social, human, financial and spiritual and
- ⇒ **Four Contexts** - ecological, techno-economic, distribution patterns and income and expenditure

of the households, the community, village and surrounding areas. This appreciation should be achieved in a participatory manner so that the assessment, analysis and planning is done by the villagers. It is also important to explore, identify and appreciate the knowledge/skill/resources that exist outside the community.

LEAP (Livelihoods Enhancement Action Plan) is one comprehensive tool that is used to understand the currently reality of the area of intervention. LEAP primarily involves general discussion with the community about the existing socioeconomic and physical environment of a village. It includes a transect walk and appreciating the techno-economic context, including the markets and their access. LEAP processes comprise various tools that can be used to get deeper understanding of the available assets and resources of the community and other insights. It is also important to cross check with the secondary data for triangulation purposes. But, secondary data should not be taken as a standard. Information obtained from application of LEAP tools will provide first hand knowledge and that is crucial.

In addition to the above, farming systems analysis, local market analysis, analysis of emerging opportunity in wider markets, institutional analysis, etc., are also undertaken. The analysis would point to various gaps and opportunities, which would have to be prioritized for further study. The interventions would then be a set of simultaneous, supplementary and complementary interventions at individual, household, sub-habitation, habitation, supra-habitation, and cluster or policy level.

The institutional arrangements for the interventions need to be worked out and the acquisition of resources planned. Resource may be required even at the planning stage and a case may have to be made to acquire the same. Of particular importance would be to access the technical and professional services during the planning stage and to make the process truly community driven. The emphasis needs to be on process and building the capacities of the target communities. Moreover, the processes need to build an environment congenial for cooperation between the target community with those others present in the village and around.

Among LEAP tools, Social Map, Resource Map, Income and Expenditure Analysis, Trade-in and Trade-out Analysis,



Value-Chain Analysis, Sub-sector Analysis and Livelihoods Analysis give valuable bird's eye and worm's eye view into the current reality of the area of intervention.

For preparation of the plan for an average village 3 facilitators should work for a minimum 4 days. The quality of the plan depends on the capacities of the facilitators. Whoever is participating in the process should work with the people within the village to get better results. We should approach people during their leisure times to get better understanding of each context.

For better understanding of the LEAP tools and processes we present a LEAP conducted and prepared in Beruvada village of Warangal district in Andhra Pradesh by Akshara Network.

Output from Social Map including transect walk in the village revealed the following -

Beruvada is located 7.6 km from Kesamudram mandal head quarters in Warangal district. It has 600 households with 800 families. The total population in the village is 2600. of the total population males are 846, females are 878 and children are 876. Most of the children go to school. There are 200 single women in the village. 27 are physically challenged.

Among the 600 houses in the village 100 have slab, 300 have mud tile roofs and the remaining 200 are huts.

There are 36 SHGs, 2 VOs, 1 MACs, 1 Mudhiraj society, 8 rythu mithras and 10 youth clubs in the village. One NGO named as PSS is also working in the village.

Though the village has concrete roads they are damaged. There is also drinking water problem in the village. The timings and quantity of water availability are very erratic.

The livestock basket of Beruvada include cows and buffaloes, bullocks, sheep and goats, pigs and poultry birds. Increasingly people are saving money in liquid form like cash

and livestock specifically sheep and goat. It is quick and easy to convert sheep and goat into cash when needed. Much of the poultry is in the form of backyard poultry.

Resource mapping done in the village revealed information on the agriculture acreage in the village and other natural resources. The village has 1810 acres of land in total. Wetland is 300 acres, dry land 900 acres and rocky land is about 200 acres. Land with ponds is 110 acres and unused land is 300 acres. The major source of irrigation is bore wells in the village followed by ponds and open wells.

The crops cultivated in Beruwada are Paddy, Ground nut, Chilli, Vegetables, Maize, Turmeric, Green gram and Red gram. While Paddy is cultivated in about 400 acres, Ground nut takes the second place with 300 acres. Chilli is cultivated in 60 acres, Green gram in 60, Maize in 50, Red gram in 40, Turmeric in 40 and Vegetables in 30 acres.



Livelihoods	No of families practicing	No of days of work
Agriculture	600	320
Vegetable vending	20 - 25	320
Sheep rearing	60 - 70	200
Well digging	45 - 50	110
Construction	50 - 60	250
Auto driving	8	325
Crane driver	1	200
Carpenters	1	200
Barber	4	365
Tailoring	4	325
Anganwadi teachers	2	280
Anganwadi aya	1	280
RMP	2	325
Toddy selling	5	200
Arrack selling	80 - 100	100
Washermen	4	320
Kirana	10 - 12	325
Leaf plate making	30 - 40	80
Tent house	1	70

The village has neem, palm and citrus trees.

Livelihood analysis in Beruwada portrays the different livelihoods practiced in the village. About 20 livelihoods came out very prominently.

In case of wage labour the wife receives wages in kind like paddy, chilli or cereals while the husband receives in cash. Widows and old women are mostly engaged in vegetable vending.

One family in the village was studied to understand the income and expenditure pattern. Gangamma in the village is engaged in selling vegetables for about 200 days in a year. She also works as agricultural wage labour for 150 days. There are 4 members in her family and her son contributes to the family income. The total family income is Rs.22000 per year. The family expenditure comes to Rs. 18780 per year. 78 per cent of the expenditure is on food.

Trade-in and Trade-out done in the village shows that services and inputs worth Rs. 1,94,73,966.00 are traded-in and Rs.1,74,65,250.00 worth of items are traded out. Cloths, sheep, arrack, fertilizers, diesel, kirana material, rice, vegetables are purchased by the villagers from outside. The villagers sell paddy, maize, vegetables, turmeric, mirchi, green gram, ground nut, red gram, sheep and goat from the village. The near by markets for them are Kesamudram and Mahaboobabad.

Agriculture and sheep rearing were the two livelihoods chosen to do value-chain analysis. Best practitioners in both the livelihoods were identified. Some gaps that surfaced during the value chain study include - poorly ventilated and poorly lighted sheds for sheep. The floor of the shed do not have proper leveling for the urine to flow out. In the sphere of agriculture turmeric was studied. All the stages including inputs, preproduction, production, post-production and marketing were analyzed.

The village has institutions like SHGs, MACS that are involved in savings and lending. Money lenders are also present. The numbers of all these players increased over a period of time.

The LEAP process identified opportunities in the village. Some of these include taking up flower cultivation. These are scope for forming collectives that can do bulk procurement and selling of agricultural produce like maize, turmeric etc. The village does not have bus facilities. Auto services can be taken up to Kesamudram and Mahabubabad the principle marketing centers for this village.

With these learnings from LEAP village plans can emerge. These plans are then appraised and are taken forward. ✪

Deccan Development Society

Women constitute a significant workforce in Indian agriculture. About 75% of the rural women are engaged in agriculture works. Deccan Development Society in Andhra Pradesh is organizing women sanghams/groups around agriculture to focus on issues like food security, seed security and natural resource management. These sanghams also take up issues related to education and health needs and also act as pressure groups.

The Deccan Development Society (DDS) is a two-decade old grassroots organization, founded by Sri Vithal Rajan, working in about 75 villages with women's sanghams (voluntary village level associations of the poor women) in Medak District of Andhra Pradesh with a vision of empowering women, the poor and the dalits. The Society has a vision of consolidating these women sanghams into vibrant organs of primary local governance and federate them into a strong pressure lobby for women, the poor and the dalits. The basic philosophy is to ensure that all activities have the total participation of the community concerned, particularly the women.

The Village sanghams are the base of DDS. The sanghams have about 5000 women members. The larger issues of food security, natural resource enhancement, and education and health needs of the region are addressed in the sanghams. Women sangham leaders formed into safe home committee ensures that women facing domestic violence in the surrounding villages are supported and provided an opportunity to rebuild their lives with dignity. The shelter is also a home to adolescent girls that prevents child marriages.



Using Participatory Rural Appraisal (PRA) methodologies as a basic tool, DDS programmes ensure that the community starts with the understanding of their conditions and DDS only acts as a catalyst to guide the community into those activities that the community decides to pursue. This leads to



the autonomy of local communities. The autonomy becomes far more important in a globalizing world, shrinking national boundaries, and disappearing national sovereignties. In this context it is crucial for local communities to take over certain spheres of autonomies to protect themselves from being trampled over by invisible globalizing forces. The women of the DDS sanghams have worked towards the

autonomy over food production, seeds, natural resources, market and media.

Responding to the emerging global challenges, the DDS communities, which had worked towards ensuring their food security over the last 20 years, are now moving into a regime of food sovereignty. Their collective effort over the coming years would be to smoothen this transition by ensuring their seed sovereignty, through practicing principles of permaculture, establishing eco-insurance and production of biomass to enhance the fertility of their soils.

Since 1985, the women of DDS sanghams have used between them about 1.2 million eco-employment days to bring back under active cultivation over 10,000 acres of degraded agricultural lands. Consequently, they have been raising over three million kilos of grain every year, which is six times more than half a million kilos of grains they used to produce earlier. In order to meet the food needs at hunger times DDS sanghams adopted alternate Public Distribution System (PDS), based on the principles of local production, local storage and local distribution to create a series of Community Grain Funds. This activity has translated into production of nearly 1000 extra meals per each participating family per year.

To ensure food sovereignty, women farmers of DDS sanghams, are also growing diverse crops on their marginalized lands, establishing village level Community Gene Funds.

The DDS women's sanghams have worked on the improvement of their natural resources in multiple ways. Since 1990, they have regenerated over 1000 acres of common land in and around their villages by raising neighborhood forests. In 28 villages, they have planted over a million trees on the degraded village commons. The DDS women have also created about 30 Village Medicinal Commons growing over 60 different species of medicinal

plants on patches of village common lands. Through this activity, they have regenerated most of the medicinal plants, which they use in their traditional healthcare system. This has helped them to regain control over their own bodies and their lives. In eight special Dalit Watersheds women have demonstrated how to design and shape small areas of land as watersheds and enshrine strong principles of food production through biodiversity based farming systems.

DDS converges with Krishi Vigyan Kendras to ensure sustainability in agriculture by promoting organic and environment friendly farming based on local knowledge as much as possible. DDS-KVK dialogues with the farming community through participatory farming research about the hazards ingrained in the practice of chemical agriculture and the improper exogenous market-driven farming systems, which have been replacing socially, culturally and economically well- adapted local systems. Collaborations are established with the institutions thinking on similar lines.

In order to bring change in the relationship between the poor and the market DDS sanghams set up their own market in the year 1999. The total membership of the market is around 2000. Sanghams are encouraged to produce food in organic ways and to advocate among the urban consumers the principles of ecologically produced safe food, and the need to rebuild local markets through a consumer-producer network. An organic market is a cooperative venture started by the Women Sangam members living in 70 villages around Zaheerabad, in 1999. It is registered in the name of Deccan Development Society Mutually Aided Credit Cooperative Society Ltd (DDS MACCS) under MACCS Act.

All the DDS women work nearly 8-10 hours every day in family farms or as hired labour in farms. To take care of the children of the working women during this time, DDS balwadis have been set up. Though started as simple childcare centers these Balwadis over a period of time evolved as centers of creative learning and nutrition.



DDS has endeavored to provide educational opportunities to the most deprived dalit children in the project area. Since 1991 it has been regularly identifying out of school children and providing the first educational opportunity through the

village night school. They graduate to summer school and move on to study at regular schools by joining social welfare hostels and government residential schools. Teachers in the school are local dalit men and women with some education. They are supported by regular training, a monthly newsletter and have designed their own textbooks up to the third level. About a thousand children are enrolled in the thirty night schools. Approximately fifty percent are girls. The night schools are a stepping-stone for working children to be enrolled in regular school. These educational efforts address a wide range of issues from literacy to life skills. Pachasaale is a special school for out-of-school working children in the 10-16 age groups, with a special focus on girl children. Along with the formal stream of education, children also learn life skills like ecological agriculture, carpentry, pottery, para veterinary sciences, herbal medicines, masonry, permaculture, tailoring and book binding.

DDS group of women are encouraged to produce successful videos to raise dialogues within their sanghams and inform the outside world of the accomplishments of their fellow women. The women have also established a Community FM Radio Facility, controlled and operated by them. In 2001, the video and radio women formed themselves into a rural women's media collective known as the DDS Community Media Trust.

Since 1998, annual Biodiversity Festivals (Jatharas) have dialogued with over 150,000 farmers of the region on ecological agriculture, control over seeds and organic markets. The NBSAP (National Biodiversity Strategy and Action Plan), of the Ministry of Environment and Forests, Government of India has accepted biodiversity festivals as the most important community cultural campaign on the issue.

DDS actively does a number of major campaigns, work shops, public hearings and public forums on various concerns such as genetically modified crops, environmental issues, child labor, Biodiversity Act etc., The Society coordinates a major annual campaign called the National Environment Awareness Campaign (NEAC) which tries to reach all sections of people on issues of environmental importance, using tools like seminars, workshops, lectures, exhibitions, science fairs, competitions, street and folk theatre, rallies, padayatras etc.

The Society has initiated a number of studies related to biodiversity in agriculture such as Farmers Perception on the Nutritional Value of Traditional Foods, Soil Fertility Management in Semi Arid India, Seeds of Deccan: Science of Farmers, Bt Cotton Study in Warangal District of A.P and Study on Alternative Public Distribution System.

In the context of soaring food prices and the looming danger of food shortages, efforts of organizations like DDS to promote food security and seed security assume great significance. With more than 75% of rural women engaged in agriculture sector today, organizing women around the issues related to agriculture and associated activities is crucial. Further, the efforts of DDS to create non-farm employment by providing education and skill building activities are commendable. 🌱

Primary Agricultural Cooperative Societies

Indian Cooperative Movement is one of the largest people's movement in the world. There are more than half a million cooperative societies in India covering almost every village in the country with a membership of more than 20 crores. Cooperative movement in India is more than 100 years old.

We have cooperatives operating in various sectors of the economy like credit, agriculture production, processing, marketing, housing dairy and textiles etc. The cooperative movement in India owes its origin to agriculture and allied sectors. The problems of rural indebtedness created an environment for cooperatives initially. The farmers came together in the cooperative movement to solve problems relating to credit, supply of inputs and marketing of agricultural produce.

The All India Rural Credit Survey Committee Report, 1954 recommended an integrated approach to cooperative credit and emphasized the need for viable credit cooperative societies by expanding their area of operation, encouraging rural savings and diversifying business. The committee also recommended for government participation in the share capital of the cooperatives.

The general policy in India on agricultural credit has been one of progressive institutionalization aimed at providing timely and adequate credit to farmers for increasing agriculture production and productivity. Providing better access to institutional credit for the small and marginal farmers and other weaker sections to enable them to adopt modern technology and improved agricultural practices has been a major concern of the policy.

Over a period of time India evolved an impressive agriculture credit delivery system through an extensive network of cooperative societies. Today there are about 97000 + Primary Agricultural Cooperative Societies (PACS) providing short term credit directly to the farmers at the grassroots level. The PACS are affiliated to the District Central Cooperative Banks which in turn are affiliated to the State Cooperative Banks. At the apex is the National Federation of State Cooperative Banks. Though NABARD is not part of this credit hierarchy, its pervasive influence extends to the entire structure. On the other hand the National Federation at the apex is very dormant body.

The PACS constitute the hub of the Indian Cooperative Movement. Every fourth cooperative in India is a primary credit society. The main objectives of PACS are -

- * To raise capital for the purpose of giving loans and supporting the essential activities of the members.
- * To collect deposits from members with the objective of improving their savings habit.
- * To supply agricultural inputs and services to members at remunerative prices.
- * To arrange for supply and development of improved breeds of livestock for the members.
- * To make all necessary arrangements for improving irrigation on land owned by members.

- * To encourage various income-augmenting activities such as horticulture, animal husbandry, poultry, bee-keeping, pisciculture and cottage industries among the members through supply of necessary inputs and services.

All India Position of PACS (Rs. In lakhs)

ITEM	2006-2007
Number of Societies	97,224
Total Membership	125,792
SC Membership	29,258
ST Membership	11,127
Paid up Capital	613,841
Govt Contribution in Capital	64,765
Total Deposits	2,348,407
Total Borrowings	4,371,449
Total Number of Borrowers	47,910
SC Borrowers	5,671
ST Borrowers	3,455
Total Loans Issued	4,961,275
Total Loans Outstanding	5,862,015
Total Demand	5,411,223
Short Term demand	4,374,940
Medium Term demand	1,036,283
Total Collections	3,835,932
Total Overdues	1,575,291

Today the biggest challenge to PACS is one of sustainability and relevance. Politics has crept in to these institutions. People with influence and political links are getting credit depriving the real beneficiaries. Huge enrollment of members takes place just before elections to sway the polls. Leaders are emerging with muscle and money power. The spirit of cooperation and sharing is eroding. The secretary is a paid servant of the government and takes little interest in the functioning of the Society. Loan waivers though gave short term relief created indiscipline in making repayments. The borrowers instead of paying their dues were waiting for another waiver. PACS limited itself to giving credit. They can expand into other areas like providing inputs etc and become more inclusive. Organizations like Grameen Bank, SEWA, CDF have proved that rural lending can be run on commercially sound principles with proper design, management and governance structure with involvement of stakeholders.

Its time for PACS to get more professional and reorient itself to the changing trends. ♻

Development Worker and Love

If we have to state the activity and the key quality of a development worker, it is LOVE. Love is not just a feeling; not just an experience; it is an activity. An activity of giving; giving without any reciprocal expectation.

In case, one is not able to give, there will be a pain. To be able to give, one needs to have power; one needs to have capacity; one needs to have fortune or luck. If one gives, the worker derives joy; boundless joy; mother's joy when she feeds her child; brother's joy when he cares his sister; sister's joy when she cares her brother; lover's joy when s/he gives to her/his love; devotee's joy when s/he devotes/submits her/himself to God; the joy one gets on achieving what one wanted to achieve.

Therefore, the power of love, the joy of giving, is known only a good lover. If a development worker is a lover, and wants to sink himself in this joy, then the development will come on its own spontaneously. If this love to be realized fully, one needs to internalize 100% its key characteristics. These are: Care, Responsibility, Respect, and Knowledge.

These four qualities are intertwined. One without the other will not lead to complete love. A lover desires the loved to grow; the lover becomes anxious; the lover seeks the growth intensely; the lover meditates; the lover prays; and the lover does many a thing towards this growth. The lover derives the joy in these acts. These acts are the witnesses for the lover's love that can not be measured. A true lover does not believe the loved its own – not at all possessive. The mother bird desires that the child bird gets the wings and flies. It does not prevent the child bird getting the wings in anticipation that the child bird will fly away when it gets the wings. In love, there is no other selfish motive except to give; except to have the joy of giving.

Then, is this kind of love possible? Yes, possible. But it is like an art. It is a philosophy. It is a way; a way of development of love. This is an art to be learnt like other arts and follow their ways of learning. It requires a discipline, a concentration, and a patience. It means to listen (but not hear); it means to live life fully; it means disappearance of two layers/time slots – personal and professional – into one; as it happens to a painter, to a dancer, to a musician etc.

One needs to improve sensitivity; particularly on one's mistakes; to be able to not to forget that one's main job is to give 'love' whatever be the other work in which one is involved. Like a mother, who senses that her child has got out of sleep, whatever be the work she is in. Like a driver, who still sees the traffic in front, while listening to the songs/music, who still listens to the horn behind. A sense of route and a sense of traffic exists in a driver. A driver drives with ease, while talking to co-passengers. Can a development worker become like that? S/he should.

One has to move towards defining true love, by overcoming the 'mad love' for oneself. It is not possible to love a person alone for a loving heart/soul. It loves all. If it cannot love all, it may not be loving that one person either! There is honesty

and integrity in love. It does not hide the mistake/error, even in the loved one. It can not hide one's own mistake in any case. It learns to see from the viewpoint of the loved. It adapts and practices. It tackles the ego that I know and agrees that it knows a bit and therefore learns to see reasons and logic/rationale correctly. The loving soul cannot trust blindly but it has necessary faith and trust in the loved ones. It has a vision, beautiful and colorful vision, which is not far from reality, for the loved ones; like a mother's vision for the child that s/he grows into an adult – for example the child would walk and so on. It means the loving soul shows respect for life, for every living being; it cares human dignity; it respects human values.

The love has the power and ability to promise and deliver the promise. The love makes the loving soul reliable. It has enormous faith in the potential of the loved ones. The act of love is simply to provide ambience for this potential to emerge and show up. Therefore, it has faith in the mankind. It believes only a few in the human beings are bad (rakshasa) and the rest are 'humans' and 'gods'. Because of this, the love does not manipulate. It educates. It does not make one work with false promises and incentives. It makes one to analyse the situation and take decisions on its own.

Love leads to productiveness. It supports some productive aspect or the other like improving the situation/ambience/environment, production, income, skills, or reducing expenses/drudgery, saving time, etc.

This love requires courage. It requires soul power and self-confidence. It requires some boldness and ability to take risks. It requires readiness to bear pain, to bear frustration and discomfort. The courage, risk and readiness displayed by a mother in child rearing, the courage and boldness displayed while we sleep, need to be displayed while we work, while we love and give.

To love, therefore, does not mean total surrender; does not mean total slavery. It means to commit oneself to give whatever within one's powers and acquire those new powers/capacities if one does not have and give, towards sharing complete love, showing immeasurable love that has no distinctions, helping the loved ones to grow fully to reach their true potential.

The loving soul does not rest. It does not move away from the faith. Thus, love is an act of faith. It is tireless worker for results. It stands for fairness and justice. Because it cannot love a person alone. It loves all; all the ones - who are love-worthy and who are waiting for love. Therefore, a loving soul can not be unfair to one for the sake of the other.

The essential act of a development worker is LOVE. The key characteristic of a development worker is to love. That is to be generous without reciprocal expectation. That is to love with reciprocal expectation. All of us can be true development workers. That is the faith we have and we celebrate.



Policies for Agriculture

From green revolution to globalization Indian agriculture has come under the influence of several policies framed by various governments from time to time. Majority of the population in India continue to depend on agriculture and agriculture associated activities for their livelihood. There is not much increase in the net income of the farmers and any little increase has certainly not kept pace with the inflation. Fight for MSP is on. Election year promises like loan waivers are in place. However an integrated end-to-end approach seem to be lacking. In this context it is important to review the policies in place for agriculture sector in India to understand their direction and vision.

National Policy for Farmers - The Policy aims at

- ♦ Substantially increasing the net income of farmers and to ensure that agricultural progress is measured by advances made in this income
- ♦ Providing support services like seeds, irrigation, power, machinery and implements, fertilizers and credit at affordable prices in adequate quantity on time
- ♦ Providing for suitable risk management measures
- ♦ Mainstreaming the human and gender dimension in all farm policies and programmes
- ♦ Fostering community-centered food, water and energy security systems in rural India
- ♦ Ensuring nutrition security at the level of every child, woman and man.
- ♦ Taking measures to attract and retain youths in farming
- ♦ Facilitating value addition activities of farm products
- ♦ Creating adequate and appropriate opportunities for non-farm employment for the farm households
- ♦ Encouraging farm and home science graduate to become an entrepreneur and to make agricultural education gender sensitive.

National Agriculture Policy - The Policy seeks to

- ♦ Actualize the vast untapped growth potential of Indian agriculture
- ♦ Strengthen rural infrastructure including irrigation, rural electrification, marketing infrastructure
- ♦ Promote value addition
- ♦ Accelerate the growth of agro business
- ♦ Create employment in rural areas and discourage migration to urban areas
- ♦ Face the challenges liberalization and globalization
- ♦ Adopt regional strategies based on agronomic, climatic and environmental conditions
- ♦ Improve post-harvest processes including techniques of preservation, storage and transportation

National Agricultural Insurance Scheme - The main objective of the scheme is to protect the farmers against crop losses suffered on account of natural calamities, such as, drought, flood, hailstorm, cyclone, fire, pests and diseases.

The salient features of the scheme include -

- ♦ All farmers including the loanee and non-loanee irrespective of their size of holding are covered
- ♦ All the food crops (cereals, millets and pulses), oilseeds and annual horticultural/ commercial crops, in respect of which past yield data is available for adequate number of years are covered
- ♦ The unit of insurance in each State/UT will be the Gram Panchayat
- ♦ Various Livestock Insurance Policies, cover is given for the sum insured or the market value of the animal at the time of death whichever is less.

National Seeds Policy - The Policy aims to

- ♦ Facilitate increase in the production of quality seeds
- ♦ Encourage public and private seed organizations to adopt economic pricing policies which would seek to realize the true cost of production
- ♦ Create climate for growth of a competitive and localized seed industry
- ♦ Encourage import of useful germplasm
- ♦ Boost exports
- ♦ Promote conservation of agro-biodiversity.

New Fertilizer Policy 2008 - India is the world's third-largest consumer of fertilizers. The country needs 27.3 million tonnes of urea annually but, the production of fertilizers particularly urea has stagnated at 20 million tonnes and no fresh investment has been made in the last decade. Under the new Policy the GOI wants to -

- ♦ Revive production from idling plants and reduce imports.
- ♦ Link prices of some fertilizers to international rates to stay competitive

Indian agriculture is going through a tough phase. Input costs have steadily increased. Productivity is stagnant or declining. Globalization and open door policy adopted by India has increased the market volatility. Indian produce is losing out in the competition with produce from countries where agriculture is highly subsidized. The small and marginal farmers are the worst victims. A comprehensive policy on agriculture primarily addressing issues at the extreme left end of the value chain at the farmer level is needed. We cannot continue to ignore the majority. ☹

Educated - Part Time Volunteers

Volunteers can be either full-time or part-time. And among them they can be persons with professional education/achievements, and persons with not much education. Last month, 'livelihoods' looked at issues related to the management of persons with professional education/achievements as full time volunteers. But several persons with professional education/achievements also come in and help as part-time volunteers.

There are various ways in which people come to be associated with a non-profit. Some get associated with the start of the organization and get associated with the organization in managing various events. This association, however, depends on being present in the same town as the non-profit, their involvement in planning such events, and the extent of their engagement wanted by the social entrepreneur.

Some others like the idea of doing some good. However, they need an organizational platform to be able to deliver. Hence, they associate themselves with organizations on a part time and take support of the organization. For example, several doctors want to do free service, but do not want to associate their clinic or hospital in the free service. It would be difficult for them to position the same clinic as both a means of their earning and also as a medium of free service. Further, they also want to spend their time in treating the poor, rather than in going door to door. In such circumstances, they get associated with nonprofits and youth groups/clubs. While the nonprofits mobilize people and give an easy entry into the community for the doctor, the doctor spends his time in treating the poor. Such persons may contribute some time every week (as in the case of general medical practitioners) or could give a few days every quarter (as in the case of surgeons).

Some persons come forward to volunteer as they are mandated by their organizations to engage in some social responsibility works. They come in with a view to fulfil some skill or knowledge gap in the organization.

One of the well documented and written about issues relates to the engagement of professional experts in the governance function like retired government officers, doctors with good standing, professors etc. However, the extent of their engagement depends a lot on the reputation that the organization gains, their engagement sought by the social entrepreneur, and the activities being related closely to the area of expertise. They can play a crucial role in networking. However, on many occasions, they could be more figure heads whose names appear on the organization's brochure to enhance the image of the organization.

The main motivation here seems to be a recognition as a 'good person' from the society at large. As this reputation is important, many prefer to volunteer in situations where they

are seen in action by general public.

It is difficult to find volunteers engaged in providing accounting services, repairing databases or editing books and cases. Management of the nonprofits need to make special efforts to get volunteers for those activities that are not clearly visible in public. They could also try to increase the occasions/events that give the volunteers exposure to public like speeches in gatherings, opinions in newspapers, coverage of events in news channels, etc. Further, the management needs to adopt processes that orient even the part-time volunteers to the mission and values of the organization.

Most of the part-time volunteers want to contribute as professionals/experts in a particular field. Only some would be willing to contribute from a generalists perspective or in events like planting trees. However, the recent trend indicates that volunteers are assembling to participate in one time events like runs, etc. However, finding volunteers to manage such events is still not easy.

Other issues in managing volunteers relate to

- ♦ cutting out a job that can be done part-time, as per the time that suits the volunteer;
- ♦ ensuring continuity of the work if the volunteer is absent on some days due to reasons related to professional work;
- ♦ continuity of work in between the visits of the volunteers;
- ♦ appraising them about the values of the organization and its work environment so that the manner in which they deal with the public is in line with the organizational values and mission

In addition to the above categories of volunteers, there are a few students who volunteer either as a part of their extra-curricular activities like NSS, NCC, etc., or as a part of their curricular activities like MSW or MBA students. These opportunities need to be sought after by the nonprofits. But the issue would be to follow-up on the maintenance of the work done by the volunteers. For example, with a lot of fanfare, NSS volunteers were once mobilized for planting saplings in a dry area. However, no arrangements were made to follow-up on the watering; and thus all the volunteer efforts resulted in a naught.

Effectively using the volunteer force is a challenge for the non-profits. Volunteers, particularly the educated ones' can become a valuable resource to the organization and the cause if they get proper orientation early on. Considering the different backgrounds and interests the volunteers come with, the non-profits should get innovative and create space to absorb this invaluable workforce. ☘

Driving Opportunity!

Urbanization is at its high in India today. The income levels of people in the cities are increasing. Lower middle class is progressively graduating to middle class and the later to upper middle class. The real estate boom has created more spending money in the hands of the people. Consumerism is at its height in India, may it be cars, may it be household luxuries, may it be travel.

Shining Livelihoods All these trends are giving impetus to some livelihoods while pushing others into obscurity. One such livelihood that gathered momentum is driving. Drivers all in high demand. Many BPOs and other Corporate houses have cab systems in place. They need drivers. The middle class have “nano” to buy. They need drivers. Cities like Mumbai are increasingly replacing auto rickshaws with cabs.

New establishments like airports are now maintaining a cabs, shuttles etc. Drivers with good driving skills and reliable track record are in high demand. Institutes giving driving skills are springing up like mushrooms. Its time to latch on to this driving opportunity! 🌟



Fading Drama!

Indian is home to many theatre/drama artists. Before the advent of movies and the idiot box (TV), drama was the dominating entertainment across in various forms. Several organizations have come into existence to promote drama over a period of time.

Declining Livelihoods However the number of people depending on theatre for livelihood are steadily diminishing. This is mainly because of the proliferation of movie and TV technology and changes in the tastes and fashions of the people. There is very little patronage for drama and drama artists today. The younger generation feels drama as an outdated media. These trends have significant influence on the livelihoods of the artists. In Andhra Pradesh alone the livelihoods of about 3 lakh drama artists and other associates diminished. Many of them are acquiring different skills and getting absorbed in other jobs. Those still depending on drama as their primary livelihood are suffering with meager incomes.

With increase in tourism in India efforts can be made to promote cultural aspects like drama especially in the rural tourist centers. Some efforts are happening on this front by



various governments. These need to be scaled up. 🌟

Zero Budget 'Farmer' Subhas Palekar

Subhas Palekar is a pioneer and strong supporter of natural farming. He had been instrumental in popularizing 'Zero Budget Farming' using natural means and process.

Palekar was born on July 1st, 1949 in a village called Belur in Amaravathi District of Maharashtra State. After finishing his graduation in Agricultural science, for some years he experimented in his own farmland setting out British devised ways of fertilizers and pesticides and became an utter failure. Then he set out to research on how our ancestors did so well in agriculture without any of these chemicals. He consulted the Vedas, and the ancient wisdom literature. The result is a revolutionary, path breaking method, which Palekar calls as 'Zero Budget Natural Farming'.

Zero Budget Natural Farming advocates cultivation of diverse species of crops depending on site specific agro climatic conditions. Mixed cropping provides buffer against total failure of single crop and also widens the income source of farmers.

Palekar's ideas on natural farming evolved from his research done in Maharashtra between 1988 and 1996. For 8 years Palekar tried his method in his own soil and replicated it in various other fields tasting success every time. After getting good results, he asked other farmers to follow. After seeing the amazing results of this technique, more and more farmers started to follow his technique and later it became a farmers' 'Andolan'.

According to Palekar, "Nature had created vegetation and since million of years, this vegetation was living without any assistance of mankind. Forests gave a large number of export-quality fruits every year without cultivation, without manure, fertilizers, spraying, hybrid seeds and irrigation and without any human assistance. God had established his special self-developing, self-nourishing and self-sufficient technology to grow and to give in severe famine also. That is why I decided to conduct research in this field."

Palekar says that the desi cow's urine, dung and milk have all the qualities required to rejuvenate the soil. Just one desi cow, is all that is required to maintain a 30 acre farm. Palekar's model of farming include

- ♦ beejamrutha a mixture of water, desi cow dung and urine, soil from the surface of the field and lime can be used to treat seeds, seedlings or any planting material
- ♦ jeevamrutha a mixture of water, desi cow dung and urine, jaggery, flour of any pulse and handful of soil from farm or, forest

Beejamrutha protects the crop from harmful soil borne and



seed borne pathogens during the initial stages of germination and establishment. Jeevamrutha promotes immense biological activity in the soil and makes the nutrients available to the crop.

Palekar condemns the university taught concept of burning the leftover plants after harvest. He says that these are to be left over in the soil itself by turning them over into the soil. This process of 'mulching' helps the soil prepare its own manure. Seed and plant diseases are treated with the help of cheap

and easily available materials like buttermilk, black pepper, neem and tobacco. He believes in a method of cultivation which makes the already existing nutrients in the soil, such as phosphate, potash, zinc and calcium available in absorbable form by the plants. Besides enabling the growth of safe, healthy produce, Palekar's model eliminates the cost of fertilisers, pesticides and seeds and greatly reduces the incentive to borrow, one of the chief causes for farmer suicides in the country. His thoughts on agriculture are available in a two-volume book in English, *The Philosophy of Spiritual Farming: Zero Budget of Natural Farming*.

Palekar distinguishes his model from organic farming, usually seen as the alternative to chemical farming. While vermicompost, biodynamic and other kinds of organic farming avoid the use of artificial chemical inputs they still violate the principles of natural farming since their methods do not enable processes of self-replenishment found in nature.

Palekar organized several workshops on Zero Budget Natural Farming in Maharashtra and other states of the country. After meeting with considerable success in Maharashtra, Palekar aroused curiosity among farmers in Karnataka. Over 50,000 farmers are now practicing his method on their fields in Karnataka.

Palekar is now spreading his efforts into North India. Punjab being the major contributor to country's food basket, he started with 25 models in various villages of Punjab. Palekar hopes that this movement will swell to other places in near future.

Subhash Palekar, popularly called 'Krishi Ka Rishi', is a man with a mission. Karnataka government conferred Basavashree Award-2005 on Palekar, recognizing and revering his "Silent Movement" in Indian agriculture.

Palekar wants agriculture to remain a viable livelihood option in rural India on which more than 60 per cent depend. He wishes to renew faith in natural farming and its ecological sanity at a time when talk of economic growth rates, IT, biotechnology, India's imminent super-power status and the like threatens to colonise our imagination of the future. ☺

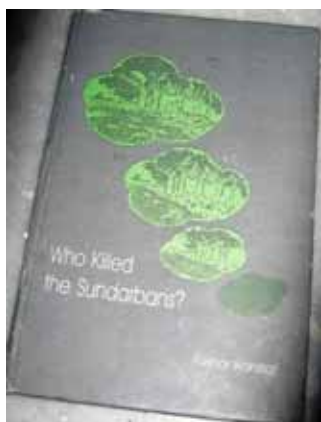
Books

Book Summary

Name: **Who Killed The Sundarbans?**

Author: **Tushar Kanjilal**

Publishers: **Tagore Society for Rural Development**



Sundarbans is one of the largest surviving mangroves in the world that is going through ecological crisis. Tushar Kanjilal a political activist, teacher with development and environment lens provides key insights into these ecologically fragile lands in his book - Who Killed The Sundarbans?

The Sundarbans are a natural delta formation at the confluence of the Ganga – Brahmaputra Rivers. The region has three distinguishing features.

- ♦ The forest cover is principally mangrove.
- ♦ The rivers surrounding these islands have regular tidal regimes.
- ♦ The forests of the Sundarbans are the breeding ground of the famous Royal Bengal tiger and other kinds of wildlife.

Sundarbans in India is composed of 102 islands of which 54 are inhabited. They are in the North and South 24 Paraganas of West Bengal State.

Sundarbans has a protected Tiger Reserve and the whole area is declared a biosphere reserve.

Human settlements in these islands, started during the British period when the lands were reclaimed without much understanding of the hydrological and

ecological characteristics of the area. These areas protected by fragile embankments face the constant music of coastal erosion and coastal floods. The strong tidal waves crashing into the embankments and the strong currents of the river water cause frequent breaches. The author brings to discussion various options to build and maintain the embankments in the book.

Population pressure is negatively impacting Sundarbans. The mangroves have been cleared for agriculture. Prawn/shrimp seed collection is taken up extensively that creates threat to other marine life. The book classifies Sundarbans into 3 divisions from ecological perspective -

1. The area that resisted human encroachment
2. The area that is partially altered by human intervention
3. The area which has been completely transformed by human intervention

The author says none of the environment related programs have been implemented with efficiency or direction.

The author says the people of Sundarbans particularly the youth are angry. The interventions in the Sundarbans are not taking the local people into confidence.

For over the last two decades author is associated with the Tagore Society for Rural Development (TSRD). It is working on Rangabelia Comprehensive Rural Development Project in the Sundarbans. The author expresses his concern towards Sundarbans that if the things move in the same way in the future as they have in the past, one day our generations would be put on the bar of history and confronted with the inevitable question "Who killed the Sundarbans?".

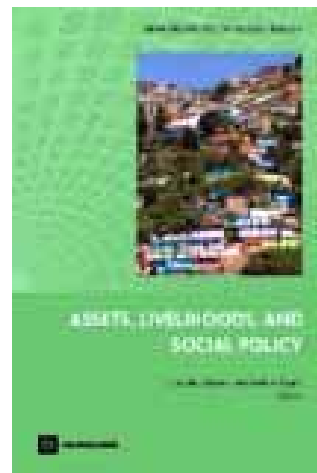
The author says, there is a need for collective action with the involvement of local people, policy makers. Eco friendly technologies would help in protecting the Sundarbans. It is for us to take up the responsibility of protecting and improving these new natural formations and preserving our environment for the future generations to come. ♻️

New Books

Name: **Assets, Livelihoods and Social Policy**

Authors: **Caroline Moser, Anis A. Dani**

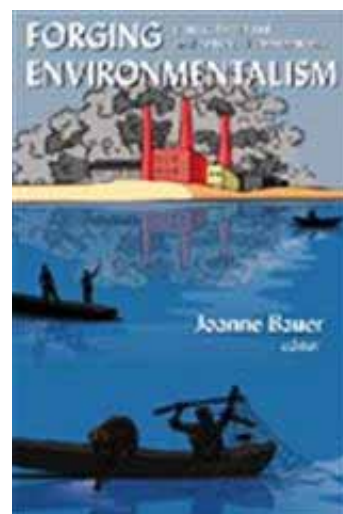
Publisher: **Washington D.C: World Bank**



Name: **Forging Environmentalism, Justice, Livelihood and Contested Environments**

Authors: **Joanne Bauer**

Publishers: **M.E. Sharpe**



Agriculture Support Services

Agriculture provides livelihood to more than 60 per cent of the people in India. From an era of importing food grains we have reached an era of exporting food grains. There are various service providers like the central research institutions, agricultural universities, non governmental organizations that render support to agricultural sector in various ways.

At the government level there is <http://www.agricoop.nic.in/> website that gives comprehensive information about various departments and institutions associated with agriculture. From here one can access the various departments under central and state governments for the research work, academic programmes, extensions services, policies, acts and schemes. Department of Agriculture and Cooperation, Department of Animal Husbandry and Dairy, Indian Council of Agriculture Research, Central Research institute for Dry Land Agriculture, Agriculture Commission on Cost and Prices, National Seed Corporation Limited, National Horticulture Board, National Cooperative Development Corporation, National Oil Seeds and Vegetable Oils Development Board, Central Insecticide Registration Committee, Coconut Development Board, Department of Fertilizers, Department of Food Processing Industries, Ministry of Water Resources are some of the Departments and Institutions related to farming.

State Agricultural Universities are major partners in growth and development of Agricultural Research and Education under National Agricultural Research System. There are total 41 agricultural universities in the country. Some of them publish handbooks and magazines for the farmers which include the agriculture calendar which includes information relating to area / soil specific to the processing stage every year.

About 550 **Krishi Vigyan Kendras (KVKs)** are set up in India. These kendras are grass root level institutions devoted for imparting need based skill oriented short and long term vocational training courses to the agricultural clientele. They conduct "On-farm testing" for identifying technologies in terms of location specific sustainable land use systems. They also organize frontline demonstrations on various crops to generate production data and feedback information.

District Agricultural Advisory and Transfer of Technology Centers (DATTCs) are set up in the State Agricultural Universities. The main objectives are to assess and refine the technologies generated by the research scientists and their suitability to different farming situations. They also implement any other extension programme that may be taken by the university, from time to time, in coordination with the line departments.

A call centre based extension service called **Kisan Call Centre** is delivering knowledge and information as per the requirements of the farming community. This service is available over the complete country. The Call Centres can

be accessed by farmers all over the country on common Toll Free Number 1551 that are available from 6 A.M. to 10 P.M. except on Sundays and gazette holidays. Beyond the stipulated days/hours the calls are attended in the IVRS mode. Each State has its own specific toll free number.

Radio, Television and the print media have become powerful means of education and technology dissemination. Broadcasting programmes covering a wide spectrum of topics in agriculture and allied fields to cover the entire country, with special focus on isolated areas and marginalized population are on. There are repeat broadcasts at different time slots to suit the viewer's convenience of different segments of population. Also available are programmes in regional languages and local dialects for the specific needs of different regions. This media also caters to the education and information needs in the field of allied areas like rural development, animal husbandry, community welfare, environment, energy conservation natural resource conservation and management etc.

Doordarshan through its countrywide network of transmitters is running the only terrestrial channel in the country. For certain hours in a day 18 regional kendras of Doordarshan transmit their programmes in regional languages. 30 minutes are allocated to regional agricultural programmes five days a week, back to back with Krishi Darshan programme of Doordarshan, through the eighteen regional kendras of Doordarshan. Private channels do telecast programmes during the evening hours on farming sector.

The **All India Radio** has Kisanvani programmes from 96 Rural Area FM Radio Stations for half an hour duration, 6 days a week with each station producing a separate programme, half fresh and half from the stock. For content creation ICAR instructions, the State Agriculture Universities and the Krishi Vigyan Kendras are involved.

District-Specific Agro-Weather Advisories in 600 districts are disseminating information through advisory centers, Kisan Vikas Kendras and Agricultural Universities. Farmers would be contacted in person as well as through radio.

Imperial Tobacco Company has started **e-Choupal** model that provides internet services and computers to the villages. E- choupals are set up in the village aiming to cover 600 farmers of 10 villages within a 5 km radius. They provide all the information on inputs, marketing, trading, processing, soil testing and all other farming knowledge.

There are 31 State Cooperative Banks, 366 District Central Cooperative Banks and 1,05,000 Primary Agriculture Societies to provide agricultural loan to the farmers. 196 regional banks with 14,000 branches are fulfilling the needs of 62 million farmers of our country. There are both short term repayment plans (input cost) and long term repayment plans (irrigation pumps, tube wells, agricultural land purchase etc. ☺

A Lesson From Butterfly

In helping the poor, many a time we respond to our sensitiveness, we work to assuage our own internal pain/guilt. In this process instead of understanding and delivering what the poor actually need we instead give what we think/believe are their needs. This can hinder the process of empowerment of the poor. It can cripple the thinking and decision making abilities of the poor. The story of the butterfly draws a nice parallel.

One day a small opening appeared on a cocoon. A man sat and watched for the butterfly for several hours as it struggled to force its body through that little hole.

Then it seems like it stopped making further progress. It appeared as it had gotten as far as it could and it could not go any further.

So the man decided to help the butterfly. He took a pair of scissors and opened the cocoon.

The butterfly then emerged easily.

But it had a withered body. It was tiny. Its wings were shrivelled.

The man continued to watch because he expected that at any moment the wings would open, enlarge and expand to be able to support the butterfly's body and become firm.

Neither happened! In fact the butterfly spent the rest of its life crawling around with a withered body and shrivelled wings. It never was able to fly.

What the man in his kindness and in his goodwill did not understand was that the restricting cocoon and the struggle required for the butterfly to get through the tiny opening were God's way of forcing fluid from the body of the butterfly into its wings, so that it would be ready for flight once its achieved its freedom from the cocoon.

Sometimes struggles are exactly what we need in life.

If God allowed us to go through our life without any obstacles, it would cripple us. We would not be as strong as we could have been. Never been able to fly.



Farm, Animal Husbandry & Non-Farm Incomes

Table 1: Distribution of Land

Land Holding	% Of households	% Of land hold
Land less	11.24	-
Sub-margin holdings [0.01-0.99 acres]	40.11	3.80
Marginal holdings [1.00-2.49 acres]	20.52	13.13
Small holdings [2.50—4.99 acres]	13.42	18.59
Medium holdings [5-14.99 acres]	12.09	37.81
Large holdings [15 acre +above]	2.62	26.67
	100.00	100.00

Source: Some Aspects of Household Ownership Landholdings-1991-92. NSS Report-399

We know that the poor practice multiple livelihoods. Table 2 obtained from one of the reports of the Farmers' Commission confirms the same. However, several interesting trends come out of this table.

- Even a little land seems to be tying down the families and income from wages declines for people over 1 acre of land. But after 1 hectare, the income from wages does not change much. This appears to be strange, and even farm families with over 2 hectares of land seem to earn some income from wages, by working on other's lands/non-farm business.
- Neither people at the lower end nor at the higher end seem to be earning from the animal husbandry. It is families with 0.41 to 2 hectares that appear to be most

suited for animal husbandry.

- On the contrary, the above families engaged in animal husbandry appear to be slightly less engaged with non-farm business. But the intensity of engagement with non-farm business among the families with over 2 hectares appears to be lower.

Most surprising, however, is the fact that the landless appear to be investing more marginally than those with land up to 0.40 hectares.

Given that over 50% of households (as can be seen from Table 1) belong to the first two categories of Table 2, their exposure to the non-farm business seem to be high. This could be reason for early impact of improved access to credit among the poor.

Table 2: Average Monthly Income from Different Sources, Consumption Expenditure and Net Investment in Productive Assets Per Farmer Household [2002-03]

Size of land possessed [hectare]	Income from Wages [Rs.]	Income from Farm [Rs.]	Net Receipt from Farming of Animals [Rs.]	Net Receipt from Non-Farm Business [Rs.]	Total of Col.2 to Col.5 [Rs.]	Net Investment [Rs.]	Total Consumption Expenditure [Rs.]
<0.01	1075	11	64	230	1380	40	2297
0.01 to 0.04	973	296	94	270	1633	37	2390
0.41 to 1.00	720	784	112	193	1809	96	2672
1.01 to 2.00	635	1578	102	178	2493	151	3148
2.01 to 4.00	637	2685	57	210	3589	387	3685

Out of Poverty

Intelligent Farmer!

Dussa Venkataiah and Ranemma belong to Veeraram village, Marripeda mandal, Warangal district. Theirs is an agriculture dependent family. They have 2 children.

Initially the family had 1.5 acres of land. Venkataiah and Ranemma worked in their own land. They also worked as agricultural labour in others fields. They cultivated turmeric and groundnut in their own land. They were never dependent on external labour unless required.

The couple took good care of the crop at every stage. From the selection of the inputs to the processing stage accurate planning was done. They earned Rs. 50,000 to 1,00,000 per annum as profit. For every 2 years they started buying 2 acres of land. Now they own 10 acres altogether. They also saved money and

purchased 2 pairs of bullocks.

Ranemma is also a member of SHG. All the groups in their village formed into MACS with support from Pragathi NGO. Ranemma took loan from society to invest on agriculture inputs. They utilized the money in a planned manner for buying agricultural inputs including fertilizers and for other expenses.

Both the children are studying now. Younger one is doing first year intermediate and the elder one is doing first year bachelors. Children help the parents in agricultural works during their leisure.

Venkataiah and Ranemma are now confident couple. They say with pride that whoever believe and have faith in land will definitely succeeded. 🌱

Broken Lives

Brain Fever Consumed the Land!

Tunga Narayana of Musapet village, Narsapur mandal, Medak district was a big farmer with 35 acres of land. He had 5 pair of bullocks working in the field. There were 5 servants working for him at home and in the field.

Narayana has four sons and one daughter. He cultivated maize, jowar and sugarcane in his land. Many villagers worked as agriculture labor in his land. Whenever villagers were in need Narayana would come to their rescue.

But, all this became a thing of the past!

Narayana incurred huge loss in sugarcane crop. At around the same time he divided the land and gave 8 acres to each of his four sons. For need of water, they got 6 bore wells dug in the land. Unfortunately all of them failed. There was no water.

The sons had big families. Each of them had 5 or more children. They wanted to perform elaborate weddings for these children and in that effort sold most of their land.

Fate struck Narayana once more. His eldest son was diagnosed with some brain disease. The family spent about Rs.1, 50,000 for medical treatment. This money was taken as loan. In spite of their best efforts Narayana and his family could not save their son.

Later, Narayana's only daughter got married. Once again the family incurred huge wedding expenditure. This multiplied the debt burden of the family.

With paltry amount land in a large family and with debt burden coupled with approaching old age the family is in despair.

Narayana is now old to take up any productive livelihood. His three sons are engaged in labour works under the National Employment Guarantee Scheme.

Narayana's journey is one from riches to rags. It's a vivid testimony to the risk that farmers go through in agriculture. When risk is not covered families slip back into poverty. Health expenditure has a dampening effect on the lives of the poor, those just above poverty line and even the middle class in India. 🌱

Another disaster struck. This time, it was in West Bengal and Bangladesh.

Increasing inflation and prices is unabated! Monsoon is progressing! Continued visits to Sundarbans, and Ganga Heart Land, and participation in business plan bids marked the month that went by. Government has carried out its threat to increase the petrol and diesel prices. But the international prices are still rising. Manmohan was suggesting us to wait for the monsoon for inflation to cool off on its own! The monsoon is underway and there are no signs of cooling off.

Amidst all these, Government's efforts seem to be focused on Nuclear Deal rather than containing inflation and prices, and restoring them back to previous levels, a six months ago at least. With elections around the corner, most of us think this should be the Government priority. Prime Minister threatens to resign for nuclear deal, rather than for price rise. Left wants to withdraw support on nuclear deal. Samajwadi Party wants to support UPA. Interesting times! Yet no respite to common man and the poor! We are finding comfort in the fact that the situation is worse in all other countries.

Sagar island in Sundarbans has shown us what it means to be fighting with the nature. Low lands away from the main land, embankments fighting tides, crabs and river flows, near absence of mangrove forests, rising sea, tidal floods, eroding land, decreasing per capita land holding, fluctuating salinity, charging aquifers with water conservation efforts else where, the islanders live a challenging life. This is accentuated by the lower realization of proportion of consumer rupee from the mainland for their products. Even then, surprisingly they lead a healthy life. I could not come across, so far, any place cleaner than this. There is also a scope to take advantage of the religious tourism on account of Ganga's milan with Sagar.

We have learnt in Raebareli and Amethi that cash credit limit availability to the poor SHGs is more revolutionary than the first, second, third, fourth and may be fifth round of loans from Banks to them. If a 15-member SHG gets a CCL of Rs.5 lakh, it is as good as a member receiving access to more than a lakh of rupees in a couple of years. This confirms, as we go on this route, that the issue, in poverty reduction and livelihoods, is no longer money but ideas for investing this money. That confirms the need to keep moving right on the micro-finance and livelihoods continuum. Many of the SHG federations and their higher order federations, many of the MFIs have started adding micro-finance plus products. They have started to think about interventions at individual, group level, village level and beyond. They have started to think about local value-addition, processing, skill building and inter-group linkages etc. This brings the lack of livelihoods professionals to the fore, once again.

At the same time, the interest rates and the terms of credit are inhuman, in parts of the country where the SHG

movement and the micro-finance institutions have not reached. I am still hearing rates of 1000% per annum and more! I am still hearing about loans that only grow despite life-long services by the loan to the 'loan provider'! These areas need 'interventions' in credit immediately.

What is the way forward? A coalition of livelihoods ideas! A platform for livelihoods workers! We need to build these coalitions and platforms. We need livelihoods volunteers who bring new ideas from outside for pre-testing, piloting and validation; we need volunteers who invest time to explore livelihoods realities with the poor in their context and opportunities that are emerging in the horizon in the wake of globalization, liberalization, privatization and technological advancement in various fronts; we need people who spot the gaps in the value-chains that can be plugged by the poor; we need volunteers who offer skills for the poor to analyze their situation; we need angel investors; we need social venture capitalists with faith in the poor and their organizations; we need new service providers providing services to the poor; we need platforms for the people to pool up best practitioners, to pool up ideas that are being tried and ideas that offer promise; we need 'bold' entrepreneurs; we need

'wise' mentors; we need 'passionate' supporters in civil society, media, bureaucracy and polity; we need writers and 'story tellers'; we need livelihoods orientation campaigners; we need livelihoods yatri; we need

livelihoods portals; we need financing portals for livelihoods ideas; we need more 'bidding' networks and 'competitions'; we need livelihoods programs to build livelihoods workers; we need livelihoods life workers; we need percolation of livelihoods thinking into all walks of life; we need spiritual master who talk livelihoods; we need technical skill providers; we need marketers; we need financial analysts; we need ICT professionals bringing ICT for poor; in essence, we need a livelihoods world.

We need to build forums that meet security, mutual support, solidarity and learning needs of the livelihoods workers. We need to build para-workers and their platforms. Further, we need to build community leaders for livelihoods, nurture livelihoods gurus from the best practitioners and develop internal animators from the community for taking up promising ideas and getting ahead. We also need to identify micro-entrepreneurs and support.

It is a long way. Let us get going. This is yoga for us - offering one's knowledge, skills and resources (Krishna's prescription) to the poor, their organizations and the organizations that support them.

The practicing yogi continues to perform all her/his duties towards acquiring knowledge, skills and resources so that her/his offerings to the poor are more enriched and relevant. Thus, this does not call upon the yoga practitioners to *lose their identities though it expects them to be devoted to it.*

Join us in the world of yoga – the practice of action with knowledge and wisdom. You will not regret it. ☺

G Muralidhar

SUNDARBANS

