



# livelihoods

today and tomorrow

February 2010

## When Disasters Strike ...



Problems Accompany Poor Man - 17

Cotton Value-Chain - 18

Livelihoods Risk - 21



Happy Sivaratri! Happy Colourful Holi!

We sincerely hope that the budgets will be in favour of the poor! Food inflation is hovering around 20%! Food security is a mirage, is not it?

Wetlands Day (2 February) and Social Justice Day (20 February) have just passed by, without any body noticing! National Science Day offers an opportunity to think and focus on spreading/enhancing scientific temper in the country! Martyr's Day and Valentine's Day have moved on, on a low key, may be due to increased prices across!

We moved one more step on Telangana. Sri Krishna Committee has been formed. Telanganites are unhappy that Terms of Reference do not talk about forming Telangana for sure. Protests, Bandhs, Resignations, Suicides etc., are back. Amidst all this, Roshaiyah introduced his 16<sup>th</sup> budget (1<sup>st</sup> as Chief Minister) in the Assembly. Its outlay is more than Rs.1000 billion, like last year. However, development and welfare lost out in allocations as a percentage.

In fluctuating lives and livelihoods, sudden emergencies and events – either natural and/or man-made disasters – earth quakes, cyclones, tsunamis, floods, droughts, plagues, fires, forest fires, wild animals running amuck, activities of the psychos, bomb explosions, anthrax attacks, battles and wars, gas leaks, virus attacks on computers, broken tanks, collapsed buildings and bridges, capsized boats/ships, kidnapped flights, leaders' murders, high-octane fights, etc., - create havoc in a neighbourhood, area, state, country or the world. The life trembles and livelihoods are lost. Some enter deep depression while some lose lives. Some became disabled. Wealth is lost. Future is lost or becomes uncertain. Poor move further down in their poverty. Middle class slip into poverty ranks. They say – disasters are great levellers!

Some of these disasters are forecastable, some are not, some with less certainty. We have some technology for projecting and forecasting. We can prevent some. We can get ready to face some of them. Some may need preparations for coping when they strike. Social networks, new information and communication technology and satellite communications, infrastructure to face disasters when they strike - like shelters, escape vehicles, vaccines, medical teams etc., responsive state, state machinery, civil society and individuals everywhere and anywhere and importantly the inner urge of a woman/man to secure her/his others are surely helping all of us in disasters, in facing disasters, in coping with and getting over disasters. However, some poor, poorest of the poor, marginalized poor, especially elders, children, disabled, women, animals etc., remain neglected most of the time. They are forgotten and they are not the priority often.

From these disasters, lives and livelihoods emerge or resurrect. There are livelihoods associated with disasters – in forecasting, in preventing/reducing, in coping with, in rescuing, in preparing people, etc. Some may be temporary. At least a 10% of the individuals live on disasters. In this context, in this context, 'livelihoods' explored 'disasters'.

Legendary Sri Ramamurthy Suri continues his efforts to popularise Amateur (ham) Radio and build more HAMs who offer communication system when all else fails. When elders are increasing, and demonstrate the ability to work, elders' groups and federations help in solidarity and economic collectivisation. This effort of HelpAge India needs to be taken all over India. SR Rao is an unusual civil servant, who has cleansed Surat when it was hit with plague. Indian Red Cross Society has been and is always forefront to help the victims when disasters strike. National Disaster Management Division's Report – Disaster Management in India - is a must for all those who want to get a perspective on Disasters and their management.

In the dynamic pursuit of decent but fluctuating livelihoods, poor need to invest in appreciating risks/disasters, preparing for risks/disasters, managing, coping with and surviving risks/disasters, and coming out of disasters and get back to normalcy. With the belief that the earth knows how to meet the real needs of all, 'livelihoods' is a part in the journey towards preventing, reducing, coping with and get over the knowledge disasters of the poor, their organizations and the individuals and institutions that work with them. With the happiness that you are part of this journey and with the faith that you are with us in this, I remain.

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

G. Muralidhar

the 'livelihoods' team

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The livelihoods of the people, particularly the poor, have significant risks associated with them. Disasters, both natural and human-made constitute the major risk for them. The poor have very limited resources to prevent, mitigate or cope with the disasters. ‘livelihoods’ looks into the issue of disasters from the perspective of livelihoods of people especially the poor.	
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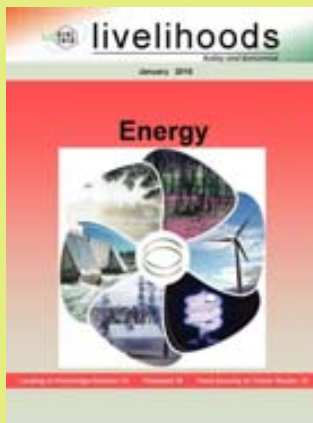
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# Response



Thanks once again for the chapter on energy. I would say that you are doing a phenomenal job of putting the perspective right. I would like to see an article on seed production (a major livelihood across the northern part of Karnataka, Tamil Nadu, Maharashtra and AP) and the cost benefit for the company's and the farmers who are engaged with the laborious activity.

Saikat

Thanks for sending this issue. The articles are really enriching and profound in its approach in dealing the subject.

Balasubramanian.M

Thank you very much for sending the issue. It is really useful for our P G students of Rural Development.

Dr. Sujit Kumar Paul

## *Caring for Wet lands- An answer to climate change*



***2 February-World Wet lands day***



## **New Scheme of Market Development Assistance (MDA) for Khadi and Polyvastra :**

In place of existing rebate scheme, the Central Cabinet Committee on Economic Affairs approved the introduction of a Market Development Assistance (MDA) Scheme. Under this scheme 20% of production value on Khadi and Khadi products and polyvastra is to be shared among spinners/weavers, producing institutions and selling institutions at the rate of 25%, 30% and 45% respectively.

## **Leadership Development Scheme for Minority Women:**

The centre wanted that the women from minority communities to become confident enough to deal with the government, the police, politicians, banks and bureaucracy on their own. To help them out, the Ministry of Minority Affairs (MoMA) has launched a leadership development scheme in villages that will show these women how to access government services, facilities and opportunities on their own. In the first year, the scheme will target about 32,000 women and government functionaries. In the second year, the programme will target 56,590 women and 93,000 in the third.

## **India Ranked 123<sup>rd</sup> in Pollution Control:**

India obtained 123<sup>rd</sup> rank in pollution control according to the 2010 environmental Performance Index (EPI) by the World Economic Forum.

## **Koraput to Acquire Global Farm Heritage Status:**

Koraput, in the state of Orissa will be one of four such sites to get international recognition by Globally Important Agriculture Heritage System (GIAHS) on the lines of World Heritage Site, by UNESCO. The other three being fish and rice farming systems of China, terrace farming of the Philippines and pastoral system of Peru.

## **Four-year Medical Course Unveiled to Bridge Urban-Rural Gap:**

With the aim to bridge the urban-rural gap in medical services, the government unveiled a four-year medical course to cater to the rural parts of the country.

The four-year course, Bachelor of Rural Medicine and Surgery (BRMS), is aimed at meeting the public health challenges in rural areas by producing 1.45 lakh rural doctors. The training will be given in three phases, the first two of one year each and the final one of 1½ years duration followed by a 6 month internship. Medical Council of India plans to set up medical colleges in 300 districts in the country where there are currently no medical colleges.

## **India, UK Agrees to Up FDI Inflows:**

India and the United Kingdom have agreed to increase Foreign Direct Investment flows and boost trade and investment flows between the two nations, and have decided to increase bilateral co-operation in the areas of manufacturing, innovation and green technologies at the meeting of the Indo-UK Joint Economic & Trade Commission (JETCO). The trade between the two countries has registered a growth of \$12 billion in 2008-09.

## **FICCI Demands Tax Sops for Food Processing Sector:**

Ahead of the Union Budget, industry body FICCI demanded tax concessions and waivers for the food processing sector to help minimise wastages, which are estimated at around Rs 30,000 crore per annum. As per FICCI, the excise duty on the refrigeration machinery components and material handling equipment (used in the food processing sector) should be totally waived.

## **Indian Railways Join Hands with Health Ministry for Medical Services:**

For the very first time, Indian Railways has joined hands with Health Ministry to provide medical treatment and facilities all over the country. As per an agreement signed by the two ministries they will both work in partnership for the development of health care centres and provide facilities like medical colleges, out-patient centres, diagnostic centres, nursing colleges and other medical centres. These can also be utilized as trauma centres in

times of emergency, natural disasters, accidents and other unanticipated situations. As per the agreement made between the two parties, the land which will be required to build the various health infrastructures will be endowed with by the Railways, and on the other hand the health ministry will look after the building up process.

## **Farm Sector Worry Continues:**

According to the latest output number put out by the Central Statistical Organisation (CSO), farm output is estimated to contract by 0.2 per cent this fiscal, against 1.6 per cent growth in last fiscal, due to drought and flood. Production of food grains and oilseeds is expected to decline by 8 per cent and 5 per cent, respectively, as compared to the previous agriculture year. While production of cotton is expected to rise by 0.2 per cent, that of sugarcane is expected to decline by 11.8 per cent in 2009-10. Among the horticultural crops, production of fruits and vegetables is expected to increase by 2.5 per cent and 4.8 per cent, respectively, during 2009-10.

## **Arcelor Mittal Gets Land for New Steel Plant in India:**

Karnataka state has decided to provide a piece of land near its Bellary district for Arcelor Mittal, investor of a 300bln Rupee steel mill there. The related steel project will be a plant with a capacity of 6mln tons per year and Arcelor Mittal has just sent its visiting team to the site on Feb 5. Arcelor Mittal was also identified with 300 hectares of iron ore mines locally, and it will sign an initial pact with the state government in June.

## **Bangladesh Allows Use of Feni Waters for Tripura Farmers:**

Neighbouring Bangladesh has agreed to allow use of water of Feni River for irrigation and drinking purpose in Sabroom subdivision of South Tripura district. A five-member technical delegation of Bangladesh Water Development Board visited Sabroom town and held a meeting with a team of Public Health Engineers, and agreed to allow use of the water for drinking and irrigation.

**India - Small, Medium Cotton Mills to Get Priority:** Cotton Corporation of India (CCI) had set up two sales depots at Coimbatore and Rajapalayam under the Depots Sales Scheme to supply cotton at low rates to mills, particularly small and medium ones. The small and medium spinning mills will have priority to purchase cotton directly at the newly opened cotton sales depot here at reduced prices.

**Fair Price Shops Transformed into 'Village Malls':** The fair price shops transformed as 'village malls' in East Godavari District in Andhra Pradesh. 70 out of 2350 fair price shops transformed into 'village malls' in this district. A wide variety of commodities other than those sold under the Public Distribution System (PDS) will also be available in these malls that are aimed at benefiting the dealers and general public. East Godavari took the lead in implementing the novel system which could be replicated in other districts depending on its success. Inventory in these village malls include items like tamarind, tea powder, soaps, pickles, note books, cool drinks, cellular phone SIM cards etc in addition to the traditional PDS menu.

**Artisans Seek More Funds in Budget:** The AP Artisans' Coordination Committee demanded allocation of the budget based on the population of artisans, which is around Rs.2 crores. The committee has unanimously resolved to urge the government to discuss the problems of artisans in the ensuing Assembly session. The meeting felt that the government had failed to tackle the problems of artisans, as indicated by their 'continuing' suicides. A major problem facing the artisans was shortage of water and fodder for sheep in 1,070 mandals.

**India to export 50,000 tonnes wheat to Nepal:** India has allowed exports of 50,000 tonnes of wheat to neighbouring Nepal signalling the government's confidence about another bumper harvest this year.

India, the world's second-biggest producer of wheat, banned exports of the grain in early 2007. It lifted the restriction for a few days in July 2009 before re-imposing it. The outlook for India's wheat crop has improved after recent rains in the three leading producing states of Uttar Pradesh, Punjab and Haryana.

**60 lakh Roses from Pune Make It to Europe:** On the occasion of Valentine's Day, around 60 lakh roses have been exported from Pune to various markets abroad. Starting January 30, export consignments comprising Dutch red roses have been exported to UK and other European countries. According to officials of the Western India Floriculture Association (WIFA), the export of roses for Valentine's Day this year is the same as last year. Pune and Bangalore are the two major rose-growing areas in the country. These floriculture hubs offer the best climatic range. In the last couple of years there has been an increase in production and more land is being brought under floriculture in the state, including Pune district. According to figures from the agriculture department, cut flower cultivation has gone up from 260 hectare (2006-07), yielding 4,770 lakh stems to 450 hectare (2009-10), yielding 8,250 lakh stems.

**Rural Job Scheme to Go Hi-tech:** NREGS wages to beneficiaries get the payments through a smart card. It is examining the results of pilot projects that various banks are implementing in Karnataka, Andhra Pradesh, Uttarakhand and Orissa. At present, it takes a month for NREGS payments to reach the actual beneficiary. Banks will set up 'banking outposts' in all gram panchayats (village councils), which will be connected through a technology platform.

**Coal India Ltd to Come Out with IPO, Reserves 1% for Employees:** India's largest coal producer, Coal India Ltd has planned an Initial public offering in which it will reserve about

1% for its employees. This is down from an earlier announcement in which the chief of the company had said that it will reserve about 2% for the employees.

**Central Assistance Worth Rs. 57.32 crores Under National Rural Drinking Water Programme (NRDWP) to Rajasthan:** The Ministry of Rural Development has released grant in aid worth Rs. Rs. 57.3250 crore to the State Government of Rajasthan during the current financial year (2009-10) towards 2nd instalment of rural water supply (DDP Areas) against allocation of Rs.17359.00 lakh to the state for the year 2009-10.

**Two Water Supply Projects Under JNNURM Get Underway:** Under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) five water supply projects have been sanctioned for Surat in Gujarat for augmenting and improving the supply of safe drinking water to its citizens.

**World Spices Congress Kindles Growth Prospects of Exports:** The 10th World Spices Congress held in New Delhi from February 3 to 5 has kindled growth prospects for Indian spices exports and trade. 165 delegates from 40 countries, including India, participated in the congress, which expressed concerns over increasing labour shortages, shift of the younger generation from agriculture to other sectors and steeply rising costs.

**World Pepper Output for 2010 Seen 329,700 Tonnes:** As per the 10th World Spice Congress, the world pepper output for 2010 would be about 329700 tonnes.

**5th International Wheat Seminar in Ahmadabad:** Many leading wheat producing and processing promotion boards - Wheat Products Promotion Society, Roller Flour Millers Federation of India, Karnataka Roller Flour Mills Association, Society of Indian Bakers and All India Bread Manufacturers Association - together has organized the Fifth International

Wheat Seminar in Ahmedabad. Currently, wheat growing in India is divided into six zones, as they differ agro-ecologically and varieties have been developed taking into account the growth period of the crop, soil type and other general requirements. The Northern Hill Zone is still dominated by traditional cereal growing with varieties that mature in May/June, while the Southern Hill Zone has a miniscule area of few hundred hectares under the tropical cold humid environment. There are about 60 different varieties grown in the country.

**Organic India Initiates Own Chain of Retail Stores:** Organic India which is involved in organic farming in Uttar Pradesh and export of herbal products abroad has now embarked upon setting up its own chain of exclusive retail stores in India. The company has already opened an exclusive retail store in Maharashtra and is in the process of inaugurating six more stores in Delhi, Chandigarh, Hyderabad, Bhopal, Nagpur and Lucknow by March end. The company was exporting organically grown herbs and ayurvedic medicines but has now

expanded the portfolio to include organically grown food grains and fruits.

**Delay in Construction of Houses for Flood Victims:** Land acquisition problems have been hampering construction of houses of flood victims in AP. The authorities planned to relocate 36 villages, which were ravaged by flood. A total of 1,050 acre land is required for the villages in eight mandals in AP. Out of 1,050 acres, the government land accounted for 200 acres and another 250 acre private land was acquired so far. Land acquisition was almost smooth in mandals like Kothapalli, Kowthalam and other places away from urban areas. In mandals like Kurnool, C. Belagal and Kallur, where the private land fetched a higher price, farmers were reluctant to part away the land at government prices.

**Malaysian Firms to Export Banana:** Two Malaysian companies -- Rainbow Export Company Ltd. and Malaysia Agro Processing Corporation -- have come forward to export banana grown in Pulivendula of Kadapa district, for the first time in Andhra Pradesh.

Quality bananas were being grown through tissue culture in about 7,000 hectares in Kadapa district, thereby standing first in the country.

**Pemberthy Brassware to Secure Geographical Identification:** The Vishwakarma Brass, Copper and Silver Industrial Cooperative Society Limited, a body comprising 35 artisans from Pemberthy village in the Warangal district of Andhra Pradesh, plans to secure a geographical indication (GI) tag for its brassware. "Many private artisans are manufacturing and marketing brassware under the Pemberthy brand. We have approached the All India Handicrafts Board, which in turn filed an application with the GI Registry in Chennai. We expect the GI tag, which will legally prohibit others from selling the Pemberthy crafts, to be issued during this year," Society President K Buchaiah Chary told. The manufacture of Pemberthy brassware dates back to the Nizam's rule, when the artisans made cooking utensils, paan daan (betel leaf boxes), attar daan (perfume boxes) and soap boxes from brass. ■

All men are born equal and must have the Right to Rise. Today they do not and people of conscience must fight till they do - *Abraham Lincoln, 1859*

Economic Reforms are not about rich guys buying Fendi bags or fancy cars. Reforms are about creating access and opportunities for the poor; the child who has power in his village to study at night, the mother who can use formal healthcare and the farmer who has can reach his market via roads - *Nandan Nilekani,*

Unorganized Employment is the slavery of the 21st Century - *President Alan Garcia of Peru*

## Doyen of Indian HAMs - Suri, VU2MY

Communication plays an extremely critical role during relief and rescue operations in times of disasters. One of the early inventions of emergency communications systems is Ham radio (Amateur radio). Sriramamurthy Suri (Ham call sign VU2MY) has been doing a commendable job training several people in HAM technology through his organization National Institute of Amateur Radio (NIAR).

Sriramamurthy Suri was born at Vuyyuru village of Krishana district in Andhra Pradesh in the year 1941. He completed his Pre-University Course in 1960 from Hindu college, Machilipatnam, AP. His parents were followers of Gandhi and participated in independent struggle. His eldest brother's son worked for Indian Air Force (IAF) and became martyr in Goa civil war. This environment at home largely influenced Suri. He wanted to serve the nation and desired to join IAF. When he was about to join Bachelor of Science course he got a call from the IAF and was selected for the wireless trade in June 1960. Suri worked in the IAF as a wireless operator for 9 years.



During the course of his work in IAF he joined the Ham radio technology training course offered by IAF and got a ham operator license (Call sign VU2MY). In the same period he was called to take part in Indo-China war in 1962 and later in Indo-Pak war in 1965. Later as his left ear was damaged during the Indo-Pak war he was asked to leave the post of army officer.

Suri left IAF and joined Hindustan Aeronautic Ltd (HAL), Hyderabad in 1969. He was an active member in the workers' union and soon he became its president. In 1970 Suri established Ham Club in HAL along with his senior N.G Nanda. Though Suri was working in HAL, his passion for ham radio continued and made him establish Andhra Pradesh Amateur Radio Society (APARS). When a major cyclone in Krishna District of AP in 1977, Suri made it possible for the victims to directly talk with the then Prime Minister Indira Gandhi by using his ham technology. In 1981 he was made in charge of organising an exhibition on "communication past, present and future" in Delhi which popularized the Ham technology among various sections of people.

In 1982, S. Suri resigned from his job in HAL and took up the task of creating awareness on using Ham Radio technology. He used Ham Radio wireless technology in 1982 Asian games. He also introduced Ham Radio in 1983 Common Wealth meetings at Hyderabad. Recognizing the importance of Ham Radio technology, the central government sent Suri to various foreign countries to study wireless communication systems. He visited Europe, America, Japan, Hong Kong and Singapore and observed the way Ham Radio technology was used in those countries and recognised the need for national level technological institution to promote Ham Radio technology widely in the country.

### HAM

Amateur radio, often called ham radio, is both a hobby and a service in which participants, called "hams," use various types of radio communications equipment to communicate with other radio amateurs for public service, recreation and self-training. Amateur radio operators enjoy personal wireless communications with each other and are able to support their communities with emergency and disaster communications if necessary. An estimated six million people throughout the world are regularly involved with amateur radio. The term "amateur" is not a reflection on the skills of the participants, which are often quite advanced; rather, "amateur" indicates that amateur radio communications are not allowed to be made for commercial purposes.

With this felt need Suri started National Institute of Amateur Radio (NIAR) in 1983. He trained many people in Amateur radio technology across the country through this institution and built a network of volunteers. The result is that, today India has more than 13000 licensed ham operators. Whenever and wherever there is a disaster like floods, earthquake, cyclone or a landslide Suri and his team will go their with equipment and offer commendable service in saving the lives and properties of people.

Suri and his team have helped people during major disasters like earthquake at Latur, Kutch and Odisha super cyclone and others. During Latur earthquake disaster Suri and his team went to the remote villages of the district like Killari, Talani and worked round the clock linking those villages to the Latur district head quarters, which enabled the district administration to undertake quick and timely rescue and relief operations.

Suri has made many personal sacrifices in his pursuit to help the disaster victims. He left his comfortable job in HAL and has taken up stressful extensive travels which has affected his health. But this has not stopped him from dreaming. He dreams that India should have at least 6 lakh ham operators available to serve the 6 lakh villages of the country. He strongly feels that many entrepreneurs have vision, skill, knowledge and dedication to serve the nation better. He argues that it is important to recognise and encourage the efforts of these entrepreneurs.

It is because of the consistent efforts of Sriramamurthy Suri that Ham and NIAR are now recognized as the frontline fighters confronting disasters like floods, cyclones, earthquakes, railway accidents etc. A real leader is one who makes more leaders. Suri surely emerged as one. He trained and nurtured several volunteers in Ham technology and with his vision to have at least 6 lakh trained volunteers, one each for India's 6 lakh villages, Suri surely has set a critical direction for a comprehensive and disaster management in India. ■



## SHGs for Elders

In India currently 8% of the population is in elders' category and this proportion is expected to exceed 16% by 2020 (12% are more than 60 years and 4% are between 55-60 years). Today more than 75% elders are living in the rural areas. One third of the elders in the country live Below the Poverty Line (BPL) and more than 70% are illiterates.

Majority (more than 70%) of the old among the poor continue to work and make an earning till their physical abilities no longer permit them to toil. Of these old, who work, 92% are engaged in the unorganized sector and does not have any kind of social security schemes. Until recently, elders were not considered credit-worthy and therefore were denied access to cost-effective formal institutional credit. Also organizing elders into groups were not fathomed.

But the initiatives by HelpAge India organization in Tamil Nadu and Kerala proved such notions wrong. It is now being widely accepted that poor elders can organize into groups and federate, can save, can borrow and repay and can take up all the economic activities that the non-elders undertake and can fight together for their rights and entitlements.

Immediately after tsunami struck Indian coast in 2004, HelpAge India (HI), the lead development organization in the country working for the cause of older people, undertook emergency relief operations in the worst-affected coastal villages of southern India in Tamil Nadu and Kerala. Loss of family members, homes and livelihoods have left the poor, particularly the elderly worse-off. The quality of life of the elders suffered a severe setback on all fronts. As the elders and their families expressed strong desire/need to resume their livelihoods, HI, through its partners, went on to restore their livelihoods (assets). In the course of the project, elders were organized into Elders Self-help Groups (ESHGs). For destitute elders Adopt-A-Granny (AAG) program was taken up by offering monthly pension in kind and cash. Mobile Medicare Units (MMUs) continued to service the elders.

A Household Assessment Survey (need assessment) was conducted to select the target elders using vulnerability criteria. With the identified elders HelpAge started organizing Elders Self Help Groups. In 2006, the first Village-Level Federation (VLF) of ESHGs was formed. By 2007, the elders' organization grew in strength and Elders for Elders' Foundation (EfEF) was formed at the apex level

with 4 District-Level Federations – Cuddalore, Nagapattinam and Vedaranyam in Tamil Nadu and Kollam in Kerala. At the regional/district level there is the District Level Federation (DLF) functioning as advocacy bodies. Over 4+ years, this concept has gained ground and now approximately 6483 elders are associated with this and organized into ESHGs. These 6483 elders organized into 419 ESHGs which are federated into 52 VLFs.

EfEF's main areas of intervention has been in promoting savings as a habit for the elderly, provide necessary credit for improving their economic earnings, organize the elderly for the cause of the aged including advocacy efforts for national and state level commission for the aged, old age pension for all destitute elders, work with district and local government for facilitating quality medical care for the aged in government run health facilities, etc. EfEF being registered as a trust is limited by the legal environment to take up microfinance and also its larger engagement in the social and welfare activities for elders can constrain the growth of microfinance culture.

The 6483 elders who organized into SHGs and their federations handle among themselves Rs.55 million funds for supporting the various needs of the members including credit. More than 95% of the members in the ESHGs have borrowed money (from within the groups and from the VLFs). The repayment rate is almost 100%, and about 98% on time. Some ESHGs have leveraged bank linkages for additional credit. The need for more funds is univocally expressed across all ESHGs and an additional fund absorption capacity to the tune of Rs.300, 000 to 1,000,000 per ESHG is vividly felt. To cater to this scale, the elders and their federations propose the setting up of a separate elders' micro-Finance institution - SRmFIE that can meet their credit and credit plus needs and also thrive in the micro-finance business culture

EfEF has been able to successfully demonstrate the concept of productive ageing. It has amply proved that the elders have immense potential to be productive, can be collectivized, and require credit to pursue livelihood activities. They need some instruments to cope with their risks. EfEF has also demonstrated that the elders are better taken care of by themselves and their immediate families and social security measures have to be geared to cement this bonding rather than making the elders dependent solely on pension or other relief assistance measures. ■



# Learning to Learn, Practice and Lead!

**Food Inflation is not budging. Food Security, a mirage!**

**Srikrishna Committee comes to study 'Telangana'. Resolution postponed by a year!?**

As we live the month, Sivaratri is celebrated. Valentine's day remains a low key event. World Day of Social Justice (20 February) and International Mother Language Day (21 February) have passed without much ado.

We could complete the material for Resources and Livelihoods Course of the distance mode PG Diploma in Sustainable Rural Development during the month. 500+ participants are going through the program in the first year of the launch itself. Bharatiyam Foundation has come into being on 15 February 2010 and it is going to manage/ implement Bharatiyam Programs – Bharatiyam Vidya and Bharatiyam Jeevika. The work on business plan for 'L-channel' is inching forward.

Watersheds, social entrepreneurship, social enterprises, urban, rural, tribal and coastal livelihoods, elders, poorest of the poor, marginalized communities, collectives, innovations, the people who work with/for them, business/strategic plans and creative tension continued to hog the most of the time of our time during the month.

This is also the budget month. Economic Advisory Council to Prime Minister has released its report. It picked up for comment - Prices, Agricultural Productivity and Power Infrastructure. Food inflation has crossed 20%, despite having enough food stocks. It points out two principal constraints to growth in India - low productivity in agriculture, and inadequate physical infrastructure particularly in power sector. Research, to increase productivity in pulses and oilseeds in rain-fed areas, and cereal productivity in water-excess areas, has to be stepped up. There is a need for mitigation strategies for the four risks of Indian farmer - credit and finance, price, acts of god and technology. Other highlights of the Economic Review 2009-10 include:

- GDP growth rate projections: 7.2% in 2009-10; 8.2% in 2010-11; 9% in 2011-12
- Large fiscal deficit is unsustainable; it needs to come down by 1-1.5% in 2010-11
- Reduce expenditure-GDP ratio by 1 per cent
- Expand service tax coverage; unify rate with Central Excise Duty/VAT
- Scale up nuclear power generation

Let us await Pranab's response in his budget proposals at the end of the month.

Most of us welcomed the decision to keep Bt brinjal on hold. Now that Shyam Saran, Special Envoy of Prime Minister on Climate Change, has put in his papers, we are not sure of the direction of Indian climate change policy.

Seeing how a student chooses to a B-school to join - brand

equity, average placement salary, profile of jobs, peer group, accreditation/recognition, first impressions, exposure, domain preference, faculty, campus, cost, loan, return on investment, location, facilities, etc., it is clear that we need to have comparable or better development management or social enterprise b-schools. Then only we will be able to get bright young minds into social development and livelihoods domain. We have 5000 B-schools in the country, producing 500,000 B-managers in the country. Then, as we need 100,000 development managers/social enterprise managers every year, we need to have at least 1000 D-schools, at least one per district. Can the governments, corporate, civil society act on this? We are running out of time, please!

In any case, we still have to figure out - What is that special social in social enterprise? We know all enterprises serve some purpose which is of use to some customers (people, therefore social). Then **what is so different about social enterprise?**

While we take time to figure this out, we are absolutely clear that our managers and leaders in business, politics or development are knowledge workers. Knowledge is the capacity for effective action. Everyone is in the business of creating knowledge and sharing it. Managers and leaders facilitate this. Then they need to remain forever learners and they should not be falling into the trap of 'getting in their way of going forward' –

- need to win always and best others, add value, show the 'smartness' to the world;
- need to be 'me';
- need to pass judgment, as a matter of fact; need to comment even if it is not worth it;
- ifs, buts and howevers;
- not listening; anger, frustration and negativity; punishing the messenger;
- refusing to express regret; failing to express gratitude;
- holding information because 'too busy', or 'forgot';
- not giving credit/recognition and claiming undeserved credit;
- making excuses; passing the buck;
- clinging to the past when the focus is present and the future;
- losing track of purpose with focus on the mechanics
- playing favorites

Let us try and learn to get out of the trap lest we will be less useful including to people around us. If we do not, the very reason we exist, will be lost!

We seem to be progressing towards have Rural Self-employment Training Institutes, one in each district, as part

## Perspectives

G. Muralidhar

of National Skill Development Mission or is it National Rural Livelihoods Mission? Finally, National Rural Livelihoods Mission is on its way to start its work soon. Social Mobilization and Collectives of the poor as the key strategy is inescapable in poverty reduction or livelihoods improvement effort across, coupled with safety net, education, capacity building and skill development. Accordingly, NRLM is expected to pursue the same. The elements therein can be –

- Three-tier sensitive support organizational architecture, at district (and sub-district), state and national levels
- Universal social mobilization of all poor into self-help groups and their higher order federal structures at village, mandal/block, district, state and national levels
- Building their institutional capacities in terms of knowledge, skills, infrastructure, human and other resources - using a variety of options including training of trainers and community resource persons/paraprofessionals on scale
- Pro-poor financial services including interest subsidy and leveraging revolving funds/ corpus grants to people's institutions
- Convergence with other programs, schemes, civil society etc.
- Scaling Skill Development for jobs, employment and enterprises
- Demand driven plans
- Accountable and transparent systems including social audit, concurrent evaluation and ICT-based online MIS

Rural includes plains, dry-land, tribal and coastal areas. However, the processes that have been working in rural areas are being taken to urban areas as well. For example, the Mission for Elimination of Poverty in Municipal Areas (MEPMA in Andhra Pradesh) is also adopting the similar strategies for its way forward. The additional pointers that have come up, in recent consultations for way forward, include:

- we cannot stop at organizing women, it is time we take the next step of organizing men also;
- developing an strategy for youth of an area, rather than looking at urban and rural youth separately;

We need to appreciate that both of them are competing for the same space in jobs and placements. We need to remember that these youth can also provide services to their local constituencies. We need service providers to and staff in the people's institutions. Some of these youth can get into this. Further, some of the services (like security, office support, etc.), that are being outsourced can be taken up by the youth as a group or a formal collective.

- collectivizing the youth who have been trained for jobs and placed;
- collectivizing self-employed, enterprising entrepreneurs including street vendors, food vendors, etc.; May be a tiered-structure of SHGs federated into

a producers' company. It can take up collective purchases, marketing, branding etc., apart from offering solidarity.

As we see the progress of social mobilization of the poor, we notice that a good quarter of them (let us call them poorest of the poor – POP) are not getting into the groups and accessing the benefits of mobilization. We need to focus on this with more effort and alternative strategies. A dedicated cadre exclusively working for them needs to be build.

On the other hand, we are also seeing the plateauing of the existing groups/institutions, cliching of the existing practices, sometimes ritualistic and sometimes lip sympathy. The time has come for efforts of rejuvenation, re-energizing and new vision building. The paradigm of economies of scale that needs to include non-poor in scaling so that the poor are in leadership and share the benefits of collectivization completely needs to be pursued.

The challenge now is how we combine this prosperity paradigm and POP strategy and get going. The challenge is also to integrate poor and their institutions with the panchayat raj institutional processes and other programs in convergence without they getting overloaded, burdened etc., still retaining the control on the benefits that need to accrue to them. Yet, we know when democracy is not working well, the way forward is nothing but more democracy. Let us facilitate democracy. Let us facilitate governance with poor in command. Let us facilitate convergence and integration. Let us facilitate transparency. Let us facilitate accountability. This may mean more knowledge; more skills; more leaders; more human resources with capacity and knowledge; more platforms; more forums; more institutions and groups; so on so forth.

**Yes, we need to build and make our promising youth leaders to commit to this agenda.**

The leaders, the human resources available to people's institutions and their support organizations, the community resource persons, paraprofessionals and service providers, and other facilitators/supporters need to learn to serve, support and lead. For this, they need to learn how to lead their personal lives first. They need to practice the art of leadership, management, professionalism and service. The practice includes: setting aside time for solitude and quiet reflection, physical care and fitness that may include walks, nutrition and live nourishment, reading, learning and knowledge building, chronicling actions, thoughts and feelings, saving some sleep time and using it, plan for the day and days ahead, listen and relish music, self-talk, recite and write pursuits, building character of principles that matter which includes courage and relentless pursuit, and simplification of life. **Do not give up practice. Join the architects of the future. Know what you truly love to do (purpose) and then direct all of your energy towards doing it. That is it!** Universe will take care of everything else.

Who should do this? Who can do this? All of us! We may be a facilitator, leader, mentor, entrepreneur, integrator, manager or a communicator in this pursuit. **Whatever we are, we need to make it our business to pursue - learn and mentor learning. Tirelessly! Persistently! Repeatedly! Again and Again!** ■



## When Disasters Strike ...

The livelihoods of the people, particularly the poor, have significant risks associated with them. Disasters, both natural and human-made constitute the major risk for them. Any disaster can cause huge devastation to the livelihoods of the people either temporarily and/or permanently. The poor have very limited resources to prevent, mitigate or cope with the disasters. Integrated disaster management planning significantly focussing on the poor is the need of the hour particularly in the context of climate changes. 'livelihoods' looks into the issue of disasters from the perspective of livelihoods of people especially the poor.





The livelihoods of the people, particularly the poor, have significant element of risk associated with them. Disasters, both natural and human-made constitute the major element of risk. Any disaster can cause huge devastation to the livelihoods of the people either temporarily and/or permanently. The lives of the poor that are already burdened with the lack of basic amenities, lack of infrastructure, lack of resources etc. become more helter skelter when disasters strike. Majority of the livelihoods of the poor are highly dependent on natural resources. Whether it is a dry land farmer, a fisherman, a non-timber forest produce collector or an agriculture labour, their lives revolve around natural resources. When disaster strikes, the status of these natural resources gets disturbed thus negatively impacting the livelihoods of the poor. So will be the impact on other resources like physical, financial, social and human which are so fundamental in supporting and enhancing the livelihoods. Even the spiritual capital of the people gets affected negatively. People lose confidence, get dispirited. Markets are disrupted and the entire local economy collapses. While the loss occurred in terms of lives and property due to the disasters can be enumerated to some extent it gets highly complex to assess the loss in terms of livelihoods.

The degree of impact from disasters is directly related to poverty. The case of the most recent disaster in Haiti proves the point very vividly. Earthquakes of similar magnitude that occurred in countries like the United States, Japan etc have resulted in negligible loss of life, whereas Haiti lost close to 200,000 human lives. Dismal investments in preventive and mitigation mechanisms, poor awareness and illiteracy, poor infrastructure hindering evacuation and post-disaster relief efforts, lack of strong law and order systems in place etc double up the impact in poor countries.

Disaster is a sudden, calamitous event bringing great damage, loss, and destruction and devastation to life and property. The damage caused by disasters is immeasurable and varies with the geographical location, climate and the type of the earth surface/degree of vulnerability. This influences the mental, socio-economic, political and cultural state of the affected area. It may also be termed as "a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of the affected society to cope using its own resources."

A disaster can have one or more of the following features:-

- \* Unpredictability
- \* Unfamiliarity
- \* Speed
- \* Urgency
- \* Uncertainty
- \* Threat

In simple terms we can define disaster as a hazard, causing heavy loss to life, property and livelihood. Events such as earthquakes, floods, and cyclones, by themselves, are not considered disasters. Rather, they become disasters when they adversely and seriously affect human

and animal life, livelihoods and property.

Disasters are often classified according to their cause, their speed of onset (sudden or slow) and whether or not they are due to "acts of nature" or "acts of humans"—a classification which is often contested, because it is argued that human actions, in fact, also precipitate natural disasters.

Disasters classified **according to cause** are named after the hazard which results in the disastrous social and economic consequences. This classification includes earthquakes, floods, cyclones, tornadoes, landslides, mud flows, droughts, pest and insect infestations, chemical explosions, etc. The speed of the disaster's onset is another way to distinguish between disasters— and the types of responses that may be required. A **rapid onset disaster** refers to an event or hazard that occurs suddenly, with little warning, taking the lives of people, and destroying economic structures and material resources. Rapid onset disasters may be caused by earthquakes, floods, storm winds, tornadoes, or mud flows. **Slow onset disasters** occur over time and slowly deteriorate a society's and a population's capacity to withstand the effects of the hazard or threat. Hazards causing these disaster conditions typically include droughts, famines, environmental degradation, desertification, deforestation and pest infestation. Disasters are sometimes classified according to whether they are "**natural**" disasters, or "**human-made**" disasters. For example, disasters caused by floods, droughts, tidal waves and earth tremors are generally considered "natural disasters." Disasters caused by chemical or industrial accidents, environmental pollution, transport and fire accidents and political unrest are classified as "human-made" or "human-caused" disasters since they are the direct result of human action. Among these natural and human-made disasters some are considered as major and some are minor which are shown in the diagram.

Earthquakes are the major natural disasters that can cause huge devastation. The recent Haiti earthquake has caused a huge loss of more than 2 lakh human lives. India has witnessed some of the most devastating earthquakes during the last century like the one in Kangra (1905), Bihar-Nepal (1934) and in Assam (1950). In the recent past, earthquakes have caused havoc in Uttarkashi (1991), Latur (1993), Jabalpur (1997), Chamoli (1999) and in Bhuj (2001). India has had a long history of earthquake occurrences. About 65% of the total area of the country is vulnerable to seismic damage of buildings in varying degrees. The most vulnerable areas, according to the present seismic zone map of India, are located in the Himalayan and sub-Himalayan regions, Kutch and the Andaman and Nicobar Islands.

Cyclones are other major disasters that generally strike the East Coast of India; some of the Arabian Sea Cyclones strike the west coast of India as well mainly the Gujarat and North Maharashtra coast. Out of the storms that develop in the Bay of Bengal, over 58 percent approach or cross the east coast in October and November. India has a very long coastline of 8041 km, large parts of which are vulnerable to cyclone.

The country receives an annual precipitation of 400 million -



hectare meters. Of the annual rainfall, 75% is received during four months of monsoon (June- September) and, as a result, almost all the rivers carry heavy discharge during this period which sometimes causes floods. The flood

hazard is compounded by the problems of sediment deposition, drainage congestion and synchronization of river floods with sea tides in the coastal plains. The area vulnerable to floods in the country is 40 million hectares and the average area affected by floods annually is about 8 million hectares. The average annual total damage to crops, houses, public utilities during the period 1953- 1995 was about Rs.9720 million.

In the hilly terrain of India including the Himalayas, landslides have been a major and widely spread natural disaster that often strike life and property and occupy a position of major concern. They often take place in conjunction with earthquakes, floods and volcanoes. The Himalayas mountain belt comprise of tectonically unstable younger geological formations subjected to severe seismic activity. The Western Ghats and nilgiris are geologically stable but have uplifted plateau margins influenced by neo- tectonic activity.

Snow cover on a slope tends to slide down the slope because of gravity which is called Avalanches which can also cause loss to property and lives. Conditions affecting stability include the gravitational force component of the snow and resisting forces, such as the frictional resistance of the slope or the anchoring effect of shrubs. In general, avalanches are caused when this balance is lost and when the forces exceed the resistance.

The most common hazard in forests is forest fire. Forest fires are as old as the forests themselves. They pose a threat not only to the forest wealth but also to the entire regime to fauna and flora seriously disturbing the bio-diversity and the ecology and environment of a region. During summer, when there is no rain for months, the forests become littered with dry senescent leaves and twinges, which could burst into flames ignited by the slightest spark. The Himalayan forests, particularly, Garhwal Himalayas have been burning regularly during the last few summers, with colossal loss of vegetation cover of that region.

Food losses due to pests, disease, wild animals, insects and weeds are considerable. It is estimated that 35% of world crop production is lost in spite of pesticide and other control programs. The primary pests are insects, disease and weeds. Losses due to birds and wild animals are low compared to these. A pest may be defined as any living organism or plant causing harm or damage to people, their animals, crops or possessions. The important pests are those, which lead to loss of crop yield or quality, resulting in loss of profits to the farmers and reduced stocks for subsistence or export.

Droughts are the common disasters that occur in India. Indian agriculture is heavily dependent on the monsoon as a source of water. In some parts of India, the failure of the monsoons result in water shortages, resulting in below-average crop

yields. This is particularly true of major drought-prone regions such as southern and eastern Maharashtra, northern Karnataka, Andhra Pradesh, Orissa, Gujarat, and Rajasthan. In the past, droughts have periodically led to major Indian famines, including the Bengal famine of 1770, in which up to one third of the population in affected areas died; the 1876–1877 famine, in which over five million people died; the 1899 famine, in which over 4.5 million died; and the Bengal famine of 1943, in which over five million died from starvation and famine-related illnesses. Present day droughts are becoming a disaster more due to poor management than the drought itself.

War and civil strife are regarded as hazards or extreme events that produce disasters. War and civil strife often cause the displacement of the population. The causal factors of war and civil strife include competition for scarce resources, religious or ethnic intolerance, and ideological differences.

Apart from the above discussed disasters, India has also witnessed some unusual human made disasters such as Plague in Surat and Gas tragedy of Bhopal etc. Sometimes a specific disaster may spawn a secondary disaster that increases the impact. A classic example is the earth quake that causes tsunami, resulting in coastal flooding.

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been a recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. In the decade 1990-2000, an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets has been astronomical. India has witnessed many disasters in recent decades such as earthquake of Uttarakashi in 1991, Surat Plague of '95 which unleashed unprecedented panic, the Lathur earthquake of '93, killing thousands besides reducing the territory to piles of concrete, flesh and rubble, Super Cyclone of Orissa in 1999, Bhuj Earthquake in 2001, Tsunami in 2004, recent flooding in Mumbai, Bihar, Andhra Pradesh and Karnataka so on so forth.

Natural disasters are not bound by political boundaries and have no social or economic considerations. They are borderless as they affect both developing and developed countries. They are also merciless, and as such the vulnerable tend to suffer more at the impact of natural disasters. For example, the developing countries are much more seriously affected in terms of the loss of lives, hardship borne by population and the percentage of their GNP lost. Since 1991, two-third of the victims of natural disasters were from developing countries, while just 2 per cent were from highly developed nations. Those living in developing countries and especially those with limited resources tend to be more adversely affected. With the alarming rise in the natural disasters and vulnerability per se, the world community is strengthening its efforts to cope with it.

The continent of Asia is particularly vulnerable to disaster strikes. Between the years 1991 to 2000 Asia has accounted for 83 per cent of the population affected by disasters globally. While the number of people affected in the rest of

the world were 1,11,159, in Asia the number was 5,54,439. Within Asia, 24 per cent of deaths due to disasters occur in India, on account of its size, population and vulnerability. Floods and high winds account for 60 per cent of all disasters in India.

Disasters lead to enormous economic losses that are both immediate as well as long term in nature and demand additional revenues. Also, as immediate fallout, disasters reduce revenues from the affected region due to lower levels of economic activity leading to loss of direct and indirect taxes. In addition, unplanned budgetary allocation to disaster recovery can hamper development interventions and lead to unmet developmental targets. Disasters may also reduce availability of new investment, further constricting the growth of the region. Besides, additional pressures may be imposed on finances of the government through investments in relief and rehabilitation work.

The extent to which a population is affected by a calamity does not purely lie in the physical components of vulnerability, but is contextual also to the prevailing social and economic conditions and its consequential effect on human activities within a given society. Research in areas affected by earthquakes indicates that single parent families, women, handicapped people, children, aged and socially discriminated sections are particularly vulnerable. The geophysical setting with unplanned and inadequate developmental activity is a cause for increased losses during disasters. In the case of India, the contribution of over-population to high population density, which in turn results in escalating losses, deserves to be noted. This factor sometimes tends to be as important as physical vulnerability attributed to geography and infrastructure alone.

In times of large scale disasters human and animal lives are lost. Houses, individual properties, other buildings like community halls, warehouses etc get washed away. There may be a loss to the standing crops. Sometimes the entire agriculture land may become uncultivable. As the disaster affects the crops, apart from farmers, other people that are dependent on agriculture such as wage labourers, people who sell agricultural inputs and implements etc. also lose. The infrastructure in the village like roads, electricity gets disrupted leaving the people who are dependent on them such as weavers, micro entrepreneurs etc. into a dire situation. As the village economy itself gets badly affected, the outsiders who are dependent on the village for their livelihoods such as vegetable and other vendors, people who come from outside for doing electrical and other repairs etc. also lose their livelihood. If the disaster is a cyclone in coastal area, the fishermen lose their nets and boats and they cannot go for fishing for some days. If a forest fire occurs, the entire tribal economy that is around the forest gets affected. The food security of the people gets affected as the prices of the goods and services go up in a disaster situation. Children's education suffers. The water and sanitation situation becomes worse, badly affecting people's health. Provisioning of basic facilities like water, health and sanitation etc during disaster times becomes difficult, as the infrastructure required to provide these facilities is damaged.

Any Disaster management is the continuous process by

which all individuals, groups, and communities manage hazards in an effort to avoid or ameliorate the impact of disasters resulting from the hazards. Actions taken depend in part on perceptions of risk of those exposed. Generally the process of disaster management involves four phases: Mitigation, Preparedness, Response and Recovery.

Mitigation efforts attempt to prevent hazards from developing into disasters altogether, or to reduce the effects of disasters when they occur. The mitigation phase differs from the other phases because it focuses on long-term measures for reducing or eliminating risk. The implementation of mitigation strategies can be considered a part of the recovery process if applied after a disaster occurs. Mitigative measures can be structural or non-structural. Structural measures use technological solutions, like flood levees. Non-structural measures include legislation, land-use planning (e.g. the designation of nonessential land like parks to be used as flood zones), and insurance.

Disaster preparedness refers to measures taken to prepare for and reduce the effects of disasters. That is, to predict and—where possible—prevent them, mitigate their impact on vulnerable populations, and respond to and effectively cope with their consequences. Disaster preparedness is a continuous and integrated process resulting from a wide range of activities and resources rather than from a distinct sectoral activity by itself. It requires the contributions of many different areas—ranging from training and logistics, to health care to institutional development. Any comprehensive disaster preparedness program includes certain elements such as: Hazard, risk and vulnerability assessments; Response mechanisms and strategies; Preparedness plans; Coordination, Information management; Early warning systems; Resource mobilization; Public education, training and rehearsals; and Community Based Disaster Preparedness etc.

The response phase in disaster management includes the mobilization of necessary emergency services and first responders in the disaster area. This is likely to include a first wave of core emergency services, such as fire fighters, police and ambulance crew etc.

The aim of the recovery phase is to restore the affected area to its previous state. It differs from the response phase in its focus; recovery efforts are concerned with issues and decisions that must be made after immediate needs are addressed. Recovery efforts are primarily concerned with actions that involve rebuilding destroyed property, re-employment, and the repair of other essential infrastructure.

Though there is considerable change in India's disaster management policy in recent years, we are still lagging behind many countries in efficiently managing the disasters preventing huge losses of lives and assets. Lots more need to be done towards making the country effective in





addressing and managing the disasters.

Capacity building is one such intervention that needs to be implemented across all strata of the country. It should not be limited to professionals and personnel involved in disaster management but should also focus on building the knowledge, attitude and skills of a community to cope with the effects of disasters. Identification and training of volunteers from the community towards first response measures as well as mitigation measures is an urgent imperative.

The goal of any disaster management initiative is to build a disaster resistant/resilient community equipped with safer living and sustainable livelihoods to serve its own development purposes. The community is also the first responder in any disaster situation, thereby emphasizing the need for community level initiatives in managing disasters. To encourage such initiatives, the following are required: Creating awareness through disaster education and training and information dissemination are necessary steps for empowering the community to cope with disasters. Within a vulnerable community, there exist groups that are more vulnerable like women and children, aged and infirm and physically challenged people who need special care and attention especially during disaster situations. Efforts are required for identifying such vulnerable groups and providing special assistance in terms of evacuation, relief, aid and medical attention to them in disaster situations. There is also an urgent need for strengthening the disaster management pedagogy by creating disaster management faculties in universities, rural development institutes and other organizations of premier research.

Sustainability is the key word in the development process. Development activities that do not consider the disaster loss perspective fail to be sustainable. The compounded costs of disasters relating to loss of life, loss of assets, economic activities, and cost of reconstruction of not only assets but of lives can scarcely be borne by any community or nation. Therefore, all development schemes in vulnerable areas should include a disaster mitigation analysis, whereby the feasibility of a project is assessed with respect to vulnerability of the area and the mitigation measures required for sustainability. Environmental protection, afforestation programmes, pollution control, construction of earthquake resistant structures etc., should therefore have high priority within the plans.

Apart from the above initiatives, some others are also need to be done such as positioning of National Disaster Response Force at different locations; setting up and strengthening of early warning systems; creation of national database for emergency management; putting guidelines in place for dealing with different types of disasters, including urban flooding, landslides and house collapse etc; strengthening relief measures such as state support, construction of earth quake resistant buildings, insurance cover etc.

Though governments since many years are successful to some extent in managing disaster relief programs, they are still failing to rehabilitate the communities that are affected by the disasters. Their focus is still on providing

food and shelter on a temporary basis immediately after disaster. But restoring houses, livelihoods and businesses, basic amenities like drinking water, sanitation etc is not a priority for any government. These are left to the affected community which they many times may not be able to restore or they may take very long time. These activities require huge investments which the community may not be able to put in. Hence the governments should take responsibility of providing basic amenities and also arranging loans and grants to restore livelihoods, construction of houses etc.

Most of the times, the compensation to the losses is paid to the victims considering the loss of lives and property/assets in their families. The loss of livelihoods is not considered many times. For instance, loss of a buffalo might be compensated to the owner but the loss of grazing land, loss of fodder is not considered. A broken boat might be compensated to a fisherman but the wages he lost because of not having that boat are not compensated. The tribal non-timber forest produce collectors are seldom compensated for the loss of produce due to forest fires. The livelihoods of the people which are dependent on the affected village are not at all considered for the assessment. A comprehensive livelihood loss assessment therefore is needed taking into account both the direct and indirect dependents on the disaster affected area.

Disasters such as crop failures need to be given a special focus as they are claiming many lives every year apart from generating huge losses to the farmers. Farmers' suicides in Vidarbha region of Maharashtra, weavers' suicides in Sircilla of Andhra Pradesh etc. should be considered as livelihood disasters and need to be addressed with the same zeal and rigour as in the case of natural disasters. With the kind of economic losses and developmental setbacks that the country has been suffering year after year, the development process needs to be sensitive towards disaster prevention and mitigation aspects.

India comes into the grip of disasters almost every year, whether it is floods or drought or cyclones or earthquakes or tsunami. Climate changes in the world are further abetting the disasters. India with its poverty levels is further vulnerable to their impacts. Disaster management is gaining momentum in the country, thanks to tsunami. The government of India and various state governments are working to gear up the institutional and infrastructural set up to prevent and mitigate disasters. However, we as a nation have a long way to tread. Natural disasters happen, how we deal with them is critical. Human made disasters are a shame. As a country we need to have zero tolerance towards them. Whether, natural or human, disasters notably affect the poor and the marginalized. The poor have very limited resources to prevent, mitigate or cope with disasters. Therefore any disaster management planning remains incomplete if it is not significantly focused on the poor. The traditional and local wisdom of the poor in dealing with disasters cannot be ignored. The poor should be partners in the disaster management planning and implementation; they should be the owners and managers of disaster management systems in their locale. Then only, when disaster strikes, we as a nation are well prepared. ■



## Problems Accompany Poor Man...

For Telugu Ramudu October 1, 2009 was a nightmare when the heavily flooded Tungabhadra washed away his village, house, crop and everything. Though being a person of multi skills, he is still not able to find any work to do for living. 'livelihoods' interviews this 65 year old man to understand his experience of the disaster.



**Q:** What is your name and where is your native place?

**A:** My name is Kudavelli Telugu Ramudu. My native place is Kudavelli village, Alampur mandal, Mahabubnagar district, Andhra Pradesh. 25 years ago, Government forced us to vacate from our village as the Srisailem Project was coming up and our village was on the way, so all of us moved to different places and we moved to Jataprolu, Andhra Pradesh away from friends, relatives and well wishers.

**Q:** Did you get any compensation from the Government?

**A:** Yes, but very less. they gave six thousand rupees for our two acres of fertile land and a house. Our village land was very fertile, as it was in between two rivers Krishna and Tungabhadra. Along with cultivation we had other livelihoods like fishing in the rivers and rowing boats. We lost all these livelihoods. We came far away from friends, relatives. All these are compensated by only six thousand rupees.

**Q:** When did you come to Alampur?

**A:** We stayed for two years at Jataprolu. I worked as labourer there, but I didn't get sufficient labour or any other work so we went back to Kudavelli along with twenty other families. There we built small huts at an elevated place and started living there. Though we got work there, in rainy season it would be flooded and our houses would be cut off from the outer world. It would be very difficult even to bring ration from nearby town. So we came to Alampur. It's been twenty years since we came here, now I built a house here.

**Q:** Tell us about your family?

**A:** I have four children, three sons and a daughter. Two sons are working in Hyderabad. I stay with my second son in Alampur.

**Q:** What do you do for living?

**A:** Fishing used to be my profession. I would also make boats and nets; cook in functions and go for agriculture work. Four years back I used to take up cooking work regularly but now it is occasional. Now I go only for labour works. Fishing is a very hard work and requires lot of strength so I am unable to go for fishing now. I also make fishing nets if someone asks.

**Q:** How did the recent floods affect you?

**A:** It was a nightmare. Alampur is just besides the river Tungabhadra and on October 1, 2009 the river over flooded

and the village completely drowned in river water. Ten other villages around our village also had drowned. We lost everything we had. Only three families who had autos and trolleys were able to shift their belongings to safe place. All of us left with single pair of cloths. We are saved because the floods came in the day time. My two houses, rice, pulses, clothes, all the vessels, furniture, boats and our crops worth thousands of rupees got washed away in the floods. It was so unexpected that we didn't have any time to think what to do. We managed to come out with our children. Our houses were in water for almost a week.

**Q:** What about relief activities from the Government?

**A:** Government asked us to stay in Montessori school building but it was already full of people. We went to Bairampally village to stay in a temple even that was crowded. Then we went to Budidapadu village to get shelter in the tobacco company godowns. We faced lot of problems in these shelters; there was no sufficient drinking water, food, blankets, cloths and other necessary materials. Government prepared and gave us some food but it was not sufficient to all of us. After three or four days we went back to Alampur and started to clean our houses. One of my houses totally collapsed. We cleaned the other house and are staying there now.

**Q:** Did you get any other help from the Government?

**A:** What will Government do? They only give promises which are never kept. No government officials/ employees helped us. It took two weeks for cleaning the house itself. Volunteers from NGOs and Communist party came and helped us to some extent. Whatever service they gave, it was invaluable. They helped us in cleaning our houses, they cleaned the streets and removed the carcasses of dead animals from the streets. They also provided some food and clothes. If their help was not there, we would have to die of hunger. Now we have no works to do because the farmers are also not in a position to call us for work. We lost everything in the floods including our livelihoods. Many of our villagers migrated to other places for work. Even if the government gives compensation later, they may compensate only for our lost house or assets. But will they compensate for our lost livelihoods? We have no income from last 3 months. Will it be compensated?

**Q:** You are saying most of the villagers migrated to other places. Then why didn't you go anywhere?

**A:** Where do I go? Problems accompany poor man wherever he goes. Here at least I have my own house to stay.

**Q:** What help do you want from the Government?

**A:** The government should build houses in safe place and take steps to create employment for us. ■

# Cotton

Cotton which is known as white gold is a soft, fluffy, staple fiber that grows in the form of a boll around the seeds. The shrub is native to tropical and subtropical regions around the world. Cotton was first cultivated seven thousand years ago by the inhabitants of the Indus Valley Civilization which is in today's Eastern Pakistan and Northwestern India. The fiber most often is spun into yarn or thread and used to make a soft, breathable textile which is the most widely used natural-fiber cloth in clothing today. The largest producers of cotton in the year 2009 are China and India with annual production of approximately 34 million bales and 24 million bales, respectively.

Cotton is the most important fiber crop of India and occupies greater portion of agrarian and industrial economy. In India cotton is cultivated in 9 million ha which is second highest in the world. Cotton accounts for 70% of total fiber consumption in the textile sector and 38% of India's exports, fetching over Rs. 420 billion or contributes to 7.5% of the GDP. Approximately 60 million people earn their livelihoods through the cultivation, trade and processing of cotton. Cotton cultivation is the back bone of textile industries and support allied livelihood activities like ginning, yarn and fabric production, textile processing, marketing, and traders of fertilizers, pesticides agrochemicals and dyeing industry.

Successful cultivation of cotton requires a long frost free period, plenty of sunshine, and a moderate rainfall. Soil need to be fairly heavy, although the level of nutrients need not be exceptional. In general, these conditions are met within the seasonally dry tropics and subtropics in the Northern and Southern hemispheres, but a large proportion of the cotton grown today is cultivated in areas with less rainfall that obtain the water from irrigation. Production of the crop usually starts soon after harvesting the preceding autumn. Planting time in spring in the Northern hemisphere varies from the beginning of February to the beginning of June. Cotton can be cultivated in the traditional method by using localized seeds with organic methods of farming practices and the other method is by using Genetically Modified seeds. Following extensive research on cotton in the year of 1970, the first commercial hybrid cotton or the genetically modified (GM) cotton seeds were developed to increase

the yield of cotton. 90% of the cotton crop cultivated today is by using GM seed variety.

Cotton is used to make a number of textile products. These include terry cloth, highly absorbent bath towels, bed sheets and garments. Cotton is also used to make yarn used in crochet and knitting, recycled or recovered cotton generated during spinning, weaving, or cutting process can be used to make fabric. Varieties of fabrics can be made; few completely from cotton, some materials blend cotton with other synthetic fibers like rayon and polyester. Cotton is also used in making fishing nets, coffee filters, tents, gun powder, making beds and in book binding. The first Chinese paper was made of cotton fiber.

Cotton is a 4 to 5 months crop. Cultivation requires inputs like land, Water, Seeds, Labour, Bullocks and plough or Tractor, Fertilizers & Pesticides, Gunny bags, Bamboo baskets, Cart/Tractor and investments to buy them. Black soil is most suitable for cotton cultivation. Investment on cotton cultivation depends on whether farmer follows organic method of cultivation or uses GM seeds. In case of organic method most of the inputs like vermi compost and bio mass are locally produced, neem seeds and an extraction made from Ginger+Garlic+Chilli are used which costs less when compared to inputs used in inorganic method which is always bought from the market. Another major investment is in terms of labour employed.

Pre production activities include ploughing of land at least two times before sowing the seeds. Manure is applied while ploughing and the land is watered to make the soil moist. The seeds are then sowed. After a month weeds are removed and fertilizers and pesticides are applied. After this stage watering has to be done only once in 20 to 25 days till the end of crop cycle. In the total crop cycle weeds have to be removed at least 4 to 5 times.



Inputs	Pre-production	Production	Harvesting	Marketing
<ul style="list-style-type: none"> <li>➤ Land</li> <li>➤ Water</li> <li>➤ Investment</li> <li>➤ Seeds</li> <li>➤ Labour</li> <li>➤ Plough</li> <li>➤ Fertilizers</li> <li>➤ Pesticides</li> <li>➤ Gunny bags</li> </ul>	<ul style="list-style-type: none"> <li>➤ Plough the land at least two times</li> <li>➤ Apply manure while plowing.</li> <li>➤ Watering the land</li> <li>➤ Sow the seeds</li> <li>➤ Again plough</li> <li>➤ Weeding</li> <li>➤ Apply 17-17-17 Fertilizer and Pesticides.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Apply 20-20 fertilizer, P o t a s h a n d Pesticides.</li> <li>➤ Apply 17-17-17 Fertilizer mixed with Urea.</li> <li>➤ Watering once in 20/25 days (based on the land moisture).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Plucking cotton (roughly 3 to 4 times in one crop cycle)</li> <li>➤ Storing cotton in clean gunny bags</li> </ul>	<ul style="list-style-type: none"> <li>➤ Taking it to market yard</li> <li>➤ Selling</li> </ul>

Crop Economics 2005-06 (As worked out by an NGO MARI, Warangal (dt), AP)			
Organic		Non-organic	
Particulars	Amount	Particulars	Amount
Neem seed 1- Quintal	200.00	17:12:12-1/2 Bag	200.00
Vermi-Compost - 5 Quintals	1000.00	28:28-1 Bag	410.00
Ginger+Garlic+Chilli (Rs. 65 x 3 times)	195.00	DAP	435.00
Pheromone Traps & yellow sticky tins	432.00	Urea + Potash	225.00
		Fride- 20 Grams	210.00
		Chloriphyripus - 1 Litre	175.00
		Esphate - 200 Grams	150.00
		Endosulphan- 1/2 Litres	125.00
		Confidor 330.00	330.00
<b>Total Cultivation cost</b>	<b>1827.00</b>	<b>Total Cultivation cost</b>	<b>2485.00</b>
Yield	5 Q	Yield	6 Q
Rate @ 2500.00 Per Quintal	12500.00	Rate @ 1740.00 Per Quintal	10440.00
Marketing Expenses	0.00	Marketing Expenses	282.00
Total Cost	1827.00	Total Cost	2767.00
<b>Net Income</b>	<b>10673.00</b>	<b>Net Income</b>	<b>7673.00</b>
<b>Gain from organic practices: 3000</b>			

Harvesting activities include picking cottons which starts from the fourth month and by the end of the crop cycle one can harvest cotton at least three or four times. Cotton is then filled in gunny bags and stored in dry and safe place till sold. On an average 5 quintals of cotton can be harvested from an acre of land if organic method of cultivation is practiced while in case of non-organic methods yield is comparatively higher to the tune of 6 to 7 quintals per acre. Organic cottons have higher market rate, it fetches Rs.2,500 per quintal, where as non organic cotton fetches Rs. 1740 per quintal. When profit is calculated it is seen that the profits from organic methods are higher even though the yield is less because the costs of inputs are less.

The table above is the income and expenditure incurred in organic and non organic cotton cultivation. The table doesn't include common costs in cultivation such as seeds, and labour. The calculation shows a gain of Rs.3000 per



acre in organic method of cultivation. The calculation doesn't take into account cost of labour as it would be same in both the cases. Marketing costs are shown as nil in case of organic method as the buyers collect cotton directly from the field, therefore farmer doesn't incur any cost. Though yield in organic method of cultivation is less there by giving less income, it is offsets by the lesser investment made on inputs. In organic method of cultivation inputs like vermi-compost and other bio-mass are locally generated. When investment is subtracted from the income, profits are higher in case of organic method of cultivation when compared to that of non-organic method.

Cotton crops are sensitive to pest attacks, once affected it destroys the crop washing away all the investments made. Therefore farmers are keen in using GM seeds which are resistant to pest attacks. But when GM seeds are sowed crop need support from chemical fertilizers and manure to grow there by increasing the cost of investments. Another disadvantage here is that seeds have to be bought every time the crop is cultivated. One cannot preserve the seeds got from one cycle and use it for cultivation in the next cycle which is possible in organic method of cultivation. In spite of all these investments on fertilizers and pesticides there is always lingering risk of crop failure.



Farmers are forced to borrow money paying interests to make these investments. As the profits are not sufficient to repay the loan, absorb fluctuating market prices, increased marketing costs and full fill family obligations, farmers are left high and dry some time forcing them to commit suicides.

As a response to this dire situation Government and NGOs have come up with various interventions. Some of them include introducing compulsory crop insurance, measures to supply adequate and timely institutional credit, proper technical advice, promoting rain fed cotton production and development the post-harvest technologies activities. There are initiatives that are promoting organic method of cultivation and formation of collectives of cotton farmers to enable collective procurement, marketing and also providing technical support and to fulfill timely credit needs. Such efforts if scaled up and implemented efficiently will empower small and marginal farmers so that they get a better portion of the consumer rupee spent. ■



# Indian Red Cross Society

The Indian Red Cross Society is a voluntary humanitarian organization having a network of over 700 branches throughout the country, providing relief in times of disasters/emergencies and promotes health & care of the vulnerable people and communities. It is a leading member of the largest independent humanitarian organization in the world, the International Red Cross & Red Crescent Movement.

In 1859 during the Franco-Austrian war in Italy, many soldiers were wounded. A young Swiss business man, Jean Henry Dunant was shocked by the condition of the wounded soldiers while seeing them in the battle fields. He arranged relief services with the help of the community immediately. He also wrote a book named 'Memory of Solferino', suggesting a neutral organization be established to aid the wounded soldiers in times of war. A year after the release of this book, an international conference was convened in Geneva to consider the suggestions of Henry Dunant and International Red Cross movement was born in 1864 as a result of this conference.

Indian Red Cross Society



The Indian Red Cross Society (IRCS) was

originated during the First World War in 1914, India. India had no organization for relief services to the affected soldiers, except a branch of the St. John Ambulance Association in aid of the soldiers as well as civilian sufferers of the horrors of that Great War. A bill to constitute the Indian Red Cross Society, independent of the British Red Cross was introduced in the Indian legislative council on 3<sup>rd</sup> March 1920 by Sir Clude Hill; member of the Viceroy's Executive Council who was also Chairman of the Joint war committee in India. Indian Red Cross Society was thus started in this background with fifty members.

Red Cross works on seven fundamental principles. Those are Humanity, Impartiality, Neutrality, Independence, Voluntary service, Unity and University. Members/institutions can enroll themselves in different grades as patron, vice-patron, life member, life associate, and institutional member with different subscriptions.

Volunteering has been at the very heart of the Red Cross since its inception in 1920. Volunteers are the back bone of all Indian Red Cross activities, helping branches to run successful programs and assisting millions of vulnerable people in need. IRCS reward and recognize volunteers whenever possible and appropriate and provides appropriate personal development opportunities. It recruits volunteers irrespective of their race, ethnicity, sex, religious belief, age and disability or membership. All volunteers are entitled to choose to become a Member of Indian Red Cross Society, can have appropriate training or personnel development to be able to undertake their agreed tasks or role; and accept or refuse any task or role in accordance of a code of ethic or fundamentals of a voluntary service.

Youth, children and adolescent represent a substantial part of the membership of Red Cross for its humanitarian commitment. Red Cross Youth program has been

designed to involve young people as much as possible in the movement and its activities not only as workers and also as beneficiaries, but as partners in management. This youth program of Red Cross focuses on promoting life and health through education and training on safety, encouraging community service through training, primary health care and healthy living etc.

The Indian Red Cross programmes are grouped into four main core areas viz. promoting humanitarian principles and values, disaster response, disaster preparedness and health and care in the community. Red Cross promotes the humanitarian values, which encourage respect for other human beings and willingness to work together to find solutions to problems. It gives fast response while disasters occur with assistance to millions of people annually ranging from refugees to victims of natural disasters.

Red Cross observed that one of the important reasons for high death toll during disasters is not having access to even the most basic services and elementary health education. Health and community care has thus become a cornerstone of humanitarian assistance, and accounts for a large part of Red Cross spending.

Other Major activities of IRCS includes: hospital services, blood bank, HIV/AIDS programmes, home for disabled service men, vocational training centers, tracing activities, maternity, child and family welfare, nursing, junior red cross activities, preparedness and prevention of communicable & infectious diseases, relief operations in fire, railway & other accidents and events etc. It also initiated a nation-wide Community Based Disaster Preparedness Program (CBDP) in the year 1999. The vision of this program is institutional strengthening, training and knowledge sharing through the establishment of a Disaster Management structure, programmes for strengthening and expanding community based disaster preparedness (CBDP) in disaster affected areas.

IRCS is a pioneer in the field of blood services and one of the largest voluntary blood banks in India since 1962. It has more than 100 blood banks all over the country under different states and district branches. IRCS has also embarked on a major task to train a cadre of qualified experts in disaster preparedness and rehabilitation activities by introducing a One Year Part Time Post Graduate Diploma Course in Disaster Preparedness and Rehabilitation in affiliation with Guru Gobind Singh Indraprastha (GGSIP) University, Delhi.

Indian Red Cross continues to work together with other National Societies all over the world "to improve the lives of vulnerable people by mobilizing the power of humanity." ■



# Livelihoods Risk

***“Building under construction collapse and 13 dead; all of them are migrant Palamur labour”***

***“Farmer commits suicide, unable to payback loan due to repeated crop failure”***

***“Avalanche kills 3 Indian soldiers guarding the Indo-China border”***

Such headlines that appeared recently in newspapers are not uncommon. All these refer to impact of various risks that people experience in their lives and livelihoods. Though risk is part of everybody's life, certain risks are specific to the livelihoods that people practice and differ from livelihood to livelihood. Thus reducing risk has become one of the objectives of livelihood interventions apart from increasing income, reducing expenditure, and increasing employment.

Risk can be understood as probable loss/harm/injury. It is a state of uncertainty where some of the possibilities involve a loss, catastrophe, or other undesirable outcomes. All of us are aware that risk is there in every aspect of life. These risks can be grouped in several ways. One is grouping the risks based on the place of their occurrence. Certain risks such as vehicle accidents occur in public places where as risks due to fire accidents etc happen inside the house (private spaces). Risks can also be categorized into idiosyncratic and covariant risks, the former refers to the risks that are specific to an individual person/ family where as the later refers to the risks that are common to all people living in a particular area or practicing a particular livelihood. Some risks can be anticipated and certain measures can be taken up to mitigate their impact or effect, while other risks could be beyond the comprehension of common people and therefore unexpected.

Certain risks such as risk of death, risk of ill-health/ accident, risk of theft are common to all sections of the people irrespective of the livelihood they practice. But it is critical to appreciate that even among the common risks, the degree of risk varies from livelihood to livelihood and more often the livelihoods of the poor are associated with higher degree of risk. However certain risks are specific to the individual/ household that practices a particular livelihood. For example dry land farmers who depend on rain for cultivation always face the risk of crop failure. If we look at a toddy tapper, honey collector or coal mine worker they have their life at risk. A daily wage labourer has a risk of not finding a work on any particular day. A dairy farmer faces the risk of disease to the cattle, risk of increase in the

price of the fodder etc. All these cases refer to the individual/ household risks and thus are called idiosyncratic risks.

There are other risks that are called covariant risks which affect the entire community in a particular area or large sections of people. We all have seen the impact of tsunami, that severely affected the livelihoods of the entire first line fishing community and also some non-fishing communities in the coastal regions. The recent floods in south India swept away large number of different kinds of livelihoods across many districts of AP and Karnataka. Similarly a fall in the market price for any farm produce shows impact on the entire farming community who cultivate that produce.

Though risks exist in each and every livelihood, the nature of risk varies depending on the livelihood itself. While some have life at risk, some have bread at risk and some have income at risk. Some livelihoods can cause temporary or permanent disability. For example continuously weaving on the loom for years together can harm the eye sight of weavers. So is the case with goldsmiths. Small vendors of perishable items such as fruits, vegetables etc. have their income at risk because of the perishable nature of their produce.

Risk also varies depending on the ability of the individual or the household to cope up with the risk. For instance a rich farmer may afford a crop loss one year but small farmers can easily fall into debt trap. Similarly people with adequate savings can cope with risk of losing a job relatively more easily than wage or casual labourer depending on their daily wages for living.

Many development workers think that poor people are not willing to take risk that is why they do not think of alternate livelihoods though they are not getting enough income from their existing livelihood. However, this is not true. If we look at the poor people's livelihoods closely we can observe that the poor are practicing the more riskiest jobs and their risk coping mechanisms are also poor. In fact the bitter truth is that people who are engaged in the most riskiest jobs, particularly at the low end are the least paid for their work. They belong to the lower rungs of the





society and can hardly have access to any social security schemes. However, poor have their own coping mechanisms for some of the risks. Generally poor people have multiple livelihoods which itself is a coping mechanism for reducing income risk. Even if they can not get income from one livelihood, they can manage for some days from the income from other livelihoods. We see poor people who maintain small ruminants as a risk reduction strategy. When ever there is a health or other emergency at home, they sell off the livestock and meet that emergency. Multiple cropping methods practiced by some of the farmers is also a risk mitigation strategy. Even if one crop fails, the income from other crops and income staggered over the year, prevents the farmer from falling into a dire situation.

It is now clear that globalization has increased the vulnerability of poor people to the risks. The poor are not able to maintain the pace at which changes are happening in their livelihoods. The rural poor, migrant labour who live in extremely hazardous conditions are facing lot of health, life and other risks and are also completely lack any social security measures. Hence it becomes important to help the poor in reducing the risks in their livelihoods particularly in this context of globalization.

Generally some risks can be prevented by foreseeing. The accidents in factories can be prevented by establishing proper monitoring mechanisms, using appropriate technology and by putting warning systems in place. For a



poor family maintaining a portfolio of livelihoods can help in diversifying the risk. For some poor, there exist a risk of losing a job as they do not have enough options and opportunities to update their skills that are required in the changing contexts. Thus providing relevant skills can help the poor in reducing their risk.

Forming collectives around livelihood activities also can help in coping with the risks. For example a cooperative of farmers can help them to prevent the risk of bad seeds

by providing good quality seeds. The cooperatives can provide low interest credit, inputs at low prices, crop insurance facility etc. so that the farmers can cope with crop failure and avoid the risk of debt trap.

Poor have greater risk of health because they engage in hard and sometimes hazardous activities such as bidi rolling, carpet weaving, cotton ginning and salt panning etc. It is proved that ill-health is also one of the important cause and consequence of poverty. In such cases where greater health risks are involved, people need health and life insurance products that are designed for the poor, that are subsidized. It is also important to make illiterate friendly insurance products as many of our poor are illiterate.

In some cases, risk exists because of lack of proper infrastructure. Perishable products such as vegetables and fruits require proper storage. Otherwise they get spoiled incurring huge losses to the producers. However, as there are no infrastructure facilities to store at the village level many rural producers are selling them off at throwaway prices to the middlemen. Similarly if the fishermen are provided with ice boxes, drying platforms etc their risk will be reduced even if the fish are not sold and in fact helps them to realize better prices due to the demand and supply forces and value addition.

In the case of covariant risks large scale community level rehabilitation/ reconstruction interventions are needed. More importantly focus should be on preparedness activities. The promising player in this case most of the times is the government with its elaborate grassroots level physical/ human and institutional infrastructure. In dealing with covariant risks the involvement of the community is extremely critical as is the case with idiosyncratic risks.

Globalization has been changing the face of both rural and urban India. Many traditional livelihoods are losing relevance and new livelihoods are gaining momentum. Many youth are not willing to take up their traditional livelihoods and are embarking the new emerging livelihoods. Along with the newer livelihoods newer risks are finding their way in. Climate changes are posing threat to many livelihoods. It is in this context risk management as a science/ art is gaining momentum and demands complete attention.

We should be aware that the livelihoods of the poor are as risky as tight rope walking. Even a short period of negligence can prove costly. Therefore the poor fear innovation and fear shift to alternative livelihoods with their impending unknown risks. In this context, it is critical to work on the existing livelihoods first, reduce risk element in them as much as possible, improve the spiritual capital of the community/household and give them all options and information including risk information, and ways to manage them, so that they make informed decisions about their existing and new livelihood opportunities. ■

# Development Risk

Development, a positive change in the quality of life of an individual, community, region or nation, more often than not, has an element of risk associated with it. Who will embrace development and who will be the risk bearers is a question one need to answer in any development intervention. Many a time it is the voiceless, the poor and the marginalized that bear the risk thrust on them in the name of development – the Development Risk...

Dams are constructed, roads are laid, timber is logged, minerals and metals are mined, cash crops and bio-fuels and now GM crops are encouraged, mechanization is supported, tourism is promoted and all this happens for development. There is no arguing the fact that the dams have increased the acreage of agriculture lands under irrigation, roads have improved access to markets, good and services, timber helped meet the demands of construction and other sectors, mines are bringing in lot of export money, cash crops and bio-fuels have increased the incomes of farmers, mechanization has reduced drudgery, increased productivity and efficiency and tourism has opened up new vistas of employment and other opportunities. However, development is not always egalitarian. Even the most well formulated development plan, while it brings in benefits to large sections of the population, most inevitably leaves some sections ignored if not worse-off. And in today's reality, the development and development planning in the country is far from being egalitarian; in fact it is more elitist. This scenario creates a huge space for development risk that is left either completely unaddressed or partially mitigated. And it is anybody's guess as to who will be the risk bearers!

Construction of huge structures like dams, railroads, roads, airports, over the years, have resulted in large scale displacement of villages jeopardizing the lives and livelihoods of large sections of the poor and marginalized. The infamous Sardar Sarovar Dam provides a glaring example. While the government claims that the dam will provide irrigation to more than 1.8 million hectares, one cannot ignore the large scale displacement of tribal and rural villages that affected more than 3 lakh people thus far. While displacement of some, for the benefit of others, is by itself unacceptable, lack of comprehensive rehabilitation package only worsens the situation. Since 1950, more than 5 million people suffered displacement under various government development projects in India. Of these displaced, nearly 40 percent are indigenous tribal communities that got affected either due to irrigation projects or mining in forest areas. Indiscriminate mining in the states of Chhattisgarh and Jharkhand have not only disrupted the economic life of the adivasi communities there but equally disturbed their socio-cultural ethos which most often is not enumerated.

Well connected road and railway network is a definite yardstick for development. Roads and railway lines have improved transportation connecting hitherto unexplored

corners of India. People's access to markets, towns, schools and hospitals eased. However, even this development is not without risk. Laying of roads into remote rural and tribal villages paved way for many mainstream populations to venture into these corner areas without adequate respect and sensitivity towards the lives and lifestyles of the people dwelling in these regions. It has also eased access for the exploitative traders and middlemen who can now buy village products and sell them in the urban markets with huge margins. Mainstream markets are now defining the consumer needs of the rural and tribal areas, thus forcing lot of stress on the lives of the latter. Today, logging and transporting of timber is done with great ease by outsiders. The government of India and various state governments are vigorously promoting rural tourism. No doubt, tourism brings in much needed money into the rural areas, but if the host community is not well prepared and the visiting community is not well informed, they can run of risk of cultural disaster.

Cash crops and bio-fuel crops are repeatedly heard. GM crops have joined the bandwagon. While cash and bio-fuel crops may bring increased incomes in the short run, extensive cultivation of the same has a huge food security risk. GM Brinjal came up in the nations' spotlight recently. We do not have a clear picture if such crops will abet food security or pose health risks. We have also seen how GM non-food crops have taken away the rights of the farmers on seeds. A trade-off between high productivity for the nation vs natural right of the farmer on the seeds! Speaking of agriculture, in a country like India, where about 69 percent of the population depends on land for their living, mechanized agriculture increased efficiency but also caused wide spread unemployment.

Development as we understand today brings with it a huge environmental risk. In the name of development we destroyed our flora and fauna, our rivers and oceans and our entire climate. Even in the environmental risk, great chunk is borne by the poor and the marginalized. With their close affiliation to nature, any destruction of the natural resources will directly impact their lives and livelihoods.

As can be seen clearly, most development is associated with some element of risk. However, when the outcomes of development are enjoyed by a section other than those bearing the risks of development, then this is a huge intervention gap. The mantra of inclusive and participatory development with attention to equity in true spirit can help mitigate development risk if not prevent it altogether. ■

**Development is not always egalitarian. Even the most well formulated development plan, while it brings in benefits to large sections of the population, most inevitably leaves some sections ignored if not worse-off.**



# Disasters and women

Disaster works like a magnifying glass; it magnifies the ugly face of marginalisation that certain sections of the society are subjected to. It is quite well known now that 'real' disaster is often not the natural hazard itself but increased vulnerability and helplessness of the poor, women, children, elderly and the disabled following the natural hazard. As substantiated by the Environmental and the Mitigation of Natural Disasters: A Gender Perspective report, "Social vulnerability to disasters is a function of human action and behaviour. It describes the degree to which a socio-economic system or physical assets are either susceptible or resilient to the impact of natural and environmental changes".

Women bare the maximum brunt of any disaster because the gender-based inequalities interact with social class, race, ethnicity, and age, putting them at high risk. The impact of a natural disaster on women has a direct correlation with the position women held prior to the event. It has been recorded that the older women, women with disabilities and pregnant and nursing women, and those with small children are often most at risk. During disaster they are left behind or left out, or the last to leave in cases of emergency because they lack knowledge, mobility and resources.

Studies show that women, boys and girls are 14 times more likely than men to die during a disaster. In 1991, during the cyclone disasters in Bangladesh, of the 140,000 people who died, 90% were women. Even if we see the industrialized countries, more women than men died during the heat wave that affected Europe. During the emergency caused by hurricane Katrina in the United States, most of the victims trapped in New Orleans were Afro-American women with their children, the poorest demographic group in that part of the country. In Sri Lanka, it was easier for men to survive during the tsunami because they knew how to swim and climb trees which is mainly taught to boys. This social prejudice means that girls and women in Sri Lanka have very few possibilities of surviving in future disasters.

## Impact of disaster on women:

There is a pattern of gender differentiation at all levels of the disaster process; exposure to risk, risk perception, preparedness, response, physical impact, psychological impact, recovery and reconstruction. There is vast difference between men and women in emergency communication; household decisions about use of relief assets; voluntary relief and recovery work; access to evacuation shelter and relief goods; and employment in disaster planning, relief and recovery programs, among other areas of concern in disaster relief. Gender inequalities with respect to enjoyment of human rights, political and economic status, land ownership, housing conditions, exposure to violence, education and health, in particular reproductive and sexual health, make women more vulnerable before, during and after disasters.

## Hindered access to relief measures:

Women find it difficult to access relief materials like food,

drinking water and clothes as they cannot make way through the crowd of men. Women and girls are more vulnerable to sexual abuse in disaster situations and may be coerced into sex for basic needs such as food, shelter and security. The sex industry often becomes part of the interaction between the refugee or displaced population and the local community.

As nutritional condition determines the capacity to deal with disasters, women who are more likely to suffer from malnutrition their ability to cope with the injuries, infections



and diseases are reduced.

Moreover, gender roles dictate that women become the primary caretakers for those affected by disasters – including children, the injured and sick, and the elderly – substantially increasing their emotional and material work load. In this whole run there is no priority to attend to trauma or emotional distress faced by women.

Women's vulnerability is further increased by the loss of men and/or livelihoods, especially when a male head of household has died and the women must provide for their families.

## Post disaster consequences:

**Loss of livelihood:** When disasters damage or destroy local environment, women lose their entire living and working space and additionally their capital equipment. At the same time, lower literacy levels and very low levels of ownership of land and other productive assets may leave women on the verge of destitution. They have less access to reconstructing jobs, credits and facilities. A study reports instances of women in Bangladesh becoming destitute following a disaster as male relatives confiscated family land from a woman in the event of her husband's and son's deaths, leaving women and daughters poverty stricken and destitute. There were no legal provisions to protect women and their families against such problems.

**Triple burden of work:** Women may find themselves burdened with even greater responsibilities than before. Post disaster "flight of men" often occurs, leaving women as sole earners. It has been reported that men abandoned





women and families and used relief aid for themselves. On the other hand women are less mobile due to their caring responsibilities. Migration may lead to demographic changes in a population and a higher share of female-headed households with limited provision of adult labour and higher responsibilities for family managing, community organizing and income-making issues. Women and children are particularly affected by disasters, accounting for more than seventy five percent of displaced persons.

**Lack of women specific health care:** In addition to the general effects of natural disaster and lack of health care, women are vulnerable to reproductive and sexual health problems. Studies have also reported adverse reproductive outcomes following disasters, including early pregnancy loss, premature delivery, stillbirths, delivery-related complications and infertility. It has been reported that in India, 24% of pregnant women exposed to isocyanides during the 1984 Bhopal explosion had spontaneous abortions. During the 1998 floods in Bangladesh, adolescent girls reported perineal rashes and urinary tract infections because they were not able to wash out menstrual rags properly in private, often had no place to hang the rags to dry, or access to clean water. They reported wearing the still damp cloths, as they did not have a place to dry them.

There is urgent need for sex-disaggregated data on disaster-related mortality, morbidity and long-term health consequences. At the local level, there is need for documentation on perceptions, preparedness and warning response of women to coping mechanisms, disaster relief. One also needs to know how gender relations operate in households and communities. Special-risk populations for disaster relief and recovery services should be identified. Basic health services provided as part of emergency relief should likewise cater to women's and men's different needs and be provided in a gender-sensitive manner.

**Women's role in reconstruction:** Women are portrayed as the victims of disaster, and their central role in response to disaster, relief work and post disaster reconstruction is often overlooked.

Forecasting information networks or early warning systems oriented towards males often don't take into account women's possibilities and channels to get information. Due to their limited access to information, women are less able to minimize risks. But women are key to prevention of

disasters: their local knowledge is useful during and after disasters, and they have survival and coping skills in emergencies, including food preservation or physical and mental health care skills need to be harnessed during relief operations.

Women should be included in pre-disaster activities such as hazard mapping and vulnerability analysis. At a minimum, this would involve taking into account the differences in vulnerability to and impact of disasters in women and men and how their roles and status affect disaster-relief and recovery. As a prerequisite Gender training of emergency managers and health service providers should become an integral part of staff training in all organizations and agencies involved in disaster-relief. One can recall efforts of Shikshsan Prayog [SSP] which helped rural women during the devastating 1993 earthquake in Latur. Despite their exclusion from repairing, planning, and designing their homes and communities, some 500 women's groups united through *mahila mandals* for training and information about reconstruction.

Community collectives can be tools to propel activities related to risk management activities and to rebuild



livelihoods. There are many examples to demonstrate this. The Self-Employed Women's Association [SEWA], provides disaster insurance to poor women through women's banks as well as training in seismically-resistant construction. Local SEWA chapters helped governmental authorities direct relief supplies and provided resources to help women begin to earn again while still in tents following the 2001 Gujarat quake. . Diversifying livelihoods by taking assistance from SHGs is not new to women such networks should be revived post disaster and a visioning for both short term and long term activities in the background of the disaster should be taken up.

Natural disasters by all means place greater burden on women than others. This fact needs to be appreciated well by the government, CSOs and all other stakeholders. This reality calls for greatly increasing the role of women at various levels in formulating and implementing disaster management plans at all phases - relief, rehabilitation and reconstruction. In times of disaster, women should quickly be able to take charge and be empowered to manage the situation at all levels. ■

Rekha Srinivasan

# Code of Conduct for NGOs in Disaster Relief

When a disaster strikes many humanitarian and non-government organizations come forward to lend a helping hand. Many donors come forward to give financial assistance. However, many of them are skeptical if the assistance given by them really reaches the victims or not. With this doubt in mind many of them are not willing to give funds to the local NGOs who are involved in the disaster relief and rehabilitation activities. In this context, the Code of Conduct for International Red Cross and Red Crescent Movement and NGOs in Disaster Relief was drawn up in 1992 by the Steering Committee for Humanitarian Response (SCHR) to set ethical standards for organizations involved in humanitarian work. In 1994, the SCHR adopted the code and made the signing of it a condition for membership in the alliance. Though this code of conduct is prepared for a specific organization, many of the World's humanitarian organizations, NGOs are adopting this into their work. This code of conduct seeks to guard the standards of behavior of signatory organizations and also creates a confidence in the donors so that they can root their financial assistance through them. It seeks to maintain high standards of independence, effectiveness and impact to which disaster response organizations aspire. The principle commitments of the code are as follows.

1) **The humanitarian imperative comes first:** The right to receive humanitarian assistance, and to offer it, is a fundamental humanitarian principle which should be enjoyed by all citizens of all countries. The prime motivation of our response to disaster is to alleviate human suffering amongst those least able to withstand the stress caused by disaster. When we give humanitarian aid it is not a partisan or political act and should not be viewed as such.

2) **Aid is given regardless of the race, creed or nationality of the recipients and without adverse distinction of any kind. Aid priorities are calculated on the basis of need alone:** Wherever possible, we will base the provision of relief aid upon a thorough assessment of the needs of the disaster victims and the local capacities already in place to meet those needs. Our provision of aid will reflect the degree of suffering it seeks to alleviate. In implementing this approach, we recognize the crucial role played by women in disaster-prone communities and will ensure that this role is supported, not diminished, by our aid programmes.

3) **Aid will not be used to further a particular political or religious standpoint:** Humanitarian aid will be given according to the need of individuals, families and communities. We will not tie the promise, delivery or distribution of assistance to the embracing or acceptance of a particular political or religious creed.

4) **We shall endeavor not to be used as an instrument of government foreign policy:** Non-Government Humanitarian Agencies (NGHA) are agencies which act independently from governments. We therefore formulate our own policies and implementation strategies and do not seek to implement the policy of any government, except in

so far as it coincides with our own independent policy. We will never allow ourselves, or our employees, to be used to gather information of a political, military or economically sensitive nature for governments or other bodies that may serve purposes other than those which are strictly humanitarian, nor will we act as instruments of foreign policy of donor governments. We value and promote the voluntary giving of labour and finances by concerned individuals and recognize the independence of action promoted by such voluntary motivation.

5) **We shall respect culture and custom:** We will endeavour to respect the culture, structures and customs of the communities and countries we are working in.

6) **We shall attempt to build disaster response on local capacities:** All people and communities – even in disaster – possess capacities as well as vulnerabilities. Where possible, we will strengthen these capacities by employing local staff, purchasing local materials and trading with local companies.

7) **Ways shall be found to involve program beneficiaries in the management of relief aid:** Disaster response assistance should never be imposed upon the beneficiaries. Effective relief and lasting rehabilitation can best be achieved where the intended beneficiaries are involved in the design, management and implementation of the assistance programme. We will strive to achieve full community participation in our relief and rehabilitation programmes.

8) **Relief aid must strive to reduce vulnerabilities to future disaster as well as meeting basic needs:** All relief actions affect the prospects for long-term development, either in a positive or a negative fashion. Recognizing this, we will strive to implement relief programmes which actively reduce the beneficiaries' vulnerability to future disasters and help create sustainable lifestyles.

9) **We hold ourselves accountable to both those we seek to assist and those from whom we accept resources:** We often act as an institutional link in the partnership between those who wish to assist and those who need assistance during disasters. We therefore hold ourselves accountable to both constituencies.

10) **In our information, publicity and advertising activities, we shall recognize disaster victims as dignified human beings, not hopeless objects:** Respect for the disaster victim as an equal partner in action should never be lost. In our public information we shall portray an objective image of the disaster situation where the capacities and aspirations of disaster victims are highlighted, and not just their vulnerabilities and fears. We will avoid competing with other disaster response agencies for media coverage in situations where such coverage may be to the detriment of the service provided to the beneficiaries or to the security of our staff or the beneficiaries.

The complete code of conduct can be seen in the book 'Humanitarian Charter and Minimum Standards in Disaster Response' of the Sphere Project of SCHR. ■



# Tribal Festival – Medaram Jatara



Medaram Jatara, held once in two years in Warangal district of AP, is now recognized as the largest tribal festival in entire Asia. It is now recognized as the second largest Hindu festival after Kumbhmela. Around 1 crore people, not only the tribals but also the non-tribals, participated in the mela this year which was held during 27-29 January 2010.



## Motor Repairing

Shining livelihoods



## Melting Ice

Declining livelihoods





## Changed Face of Plague City – SR Rao

We all know Surat as the city of Diamonds and Textiles. This city was once also called as the Plague city as the city was struck with this panic epidemic in the year 1994. However, within three years after the epidemic struck, Surat, once known as the dirtiest city in the country, has turned into the most beautiful city and all it took for this was only one determined government official, SR Rao.

Suryadevara Ramachandra Rao (SR Rao) born in Andhra Pradesh on 9<sup>th</sup> January in 1954. He did graduation in physics, chemistry and mathematics and masters in social work and rural development. He joined in Civil Service in Gujarat in 1978. He held many positions during his service as an IAS officer. However the tenure of his work as a Municipal Commissioner of Surat from 1995 to 1997 is the most remembered as he changed the face of the city from the most unhygienic to the most beautiful.

The port, notoriously filthy and overcrowded city Surat (especially northern city of Surat) was attacked by plague in September 1994 due to continuous rain which lashed Surat for two months. The faulty drainage system could not handle this and the result was large-scale water logging. Hundreds of cattle and other animals died and the rats ran riot because of the floods and the municipal authorities were not prompt enough in clearing the city, which led to massive sanitation problems. The Surat Municipal Corporation (SMC) had failed to provide basic sanitation and clean drinking water to a majority of the city's population. Estimates put the number of dead at 52 people, infected hundreds of others and about 3 lakh people fled from the city. It happened only because people freely threw their garbage on the streets and did not clean the filthy containers for months on end even as animal carcasses rotted on street corners. Surat had become host to diseases like malaria, jaundice and dengue fever. Even before the plague struck the city, these diseases had already assumed epidemic proportions.

In this context, SR Rao, IAS was appointed to Surat as Municipal Commissioner in May 1995. Faced with a city traumatized by the plague and a state government cringing over the adverse publicity, Rao started raiding eateries, roadside haunts, fast-food shops, restaurants and sweetmeat shops to demonstrate to the city that these are unhygienic. When he trampled on mounds of food with cockroaches and rats swarming over them, Rao caught the imagination of the people. The raids hit suppliers, manufacturers and all popular restaurants in the city were sealed till they cleaned up. Rao walked into the filthiest slums, encouraged people to clean up their surroundings. He told to civic sweepers what to do and got officials into the act. This act too hit the mark since an estimated 40 per cent of the city's population lived in slums, 80 per cent of them migrants. These slums were located on encroached municipal or private land, along major transport corridors, and near factory premises on low lying areas without proper drainage.

S R Rao shook the city administration including cleaning sewage lines, widening roads and improving slums. Each

city department was being run like an insulate fiefdom. Administrative barriers were broken down through decentralization and joint teams that tried to overcome the old malaise of one department laying roads and the other digging them up a few months later. Ward officers were expected to listen to citizen complaints and act on them promptly. A "six-month, six-page" rule was introduced: Any city official who did not complete a task in six months was asked to explain the reasons in a six-page note. Rao once described the change in the administrative culture as a move from AC to DC, i.e. from air-conditioned offices to Daily Chores. Officers from all the six zones of the city would start their day at 7 am and supervise sweepers and cleaners on Surat streets. A unique and innovative night cleansing system was developed: Every street and corner was scrubbed at night and garbage bins cleared so that Suratis awoke to a clean city each morning. Within one year, through well orchestrated methods, administrative, legal, punitive and community motivation, the SMC increased the cleaning of accumulated garbage from 450 tonnes (50 per cent of the amount generated at the time of the plague) to almost 94 per cent of the 1,100 tonnes of garbage generated every day in 1995.

SR Rao talked with the local builders who built the buildings without proper drainage systems and convinced them to change their building structures. The SMC officials would draw up a line on the streets and mark the illegally-constructed houses and the residents would demolish all of them. As a result of this drive, narrow lanes which could barely accommodate two-wheelers earlier became wide enough to allow buses and cars to move freely. Cleanliness became the order of the day. All this achievements were not a cakewalk for Rao. He had been threatened by many people and even from his higher officials sometimes. However, he did not care for any of them and moved forward in his pursuit to remove the scar of plague on the city.

SR Rao's decentralized system to clean up the city worked so well that it attracted researchers and urban managers to examine the reasons for its success. The filthiest city in the country had metamorphosed into the cleanest city within two years and once again Surat played host to hundreds of people, including teams from other Municipal Corporations, non-governmental organizations, doctors and researchers.

Though Rao moved out of Surat at the end of 1997 - two years after he had entered the city - it continues to be clean and has arguably become the most livable city in Gujarat. Swanky flyovers, broad clean roads, washed streets and spotless footpaths are now a part of this industrial city. Two years later, the Indian National Trust for Art and Cultural Heritage even declared Surat the second cleanest city after Chandigarh in India. For his services in the rebuilding of post-plague Surat, Rao was awarded the Public Service Excellence award instituted and administered by the All India Management Association to recognize, applaud and uphold the bureaucracy's commitment to public service. ■

## Sharpen the Axe

Most of us never update our skills. We think what ever we learnt is enough to lead the life forever. However, this is not true. If we do not update our skills our efficiency will reduce, forbidding our growth. This short story of the woodcutter tells us this fact.

Once upon a time a very strong woodcutter asked for a job with a timber merchant, and he got it. His salary was really good and so were the working conditions. For that reason, the woodcutter was determined to do his best.

His boss gave him an axe and showed him the area where he was supposed to fell the trees.

The first day, the woodcutter brought fifteen (15) trees.



"Congratulations," the boss said, "Carry on with your work!"

Highly motivated by the words of his boss, the woodcutter tried harder the next day, but he only could bring ten (10) trees.

The third day he tried even harder, but he was only able to bring seven (7) trees. Day after day he was bringing less and less trees.

"I must be losing my strength." The woodcutter thought. He went to the boss and apologized, saying that he could not understand what was going on.

"When was the last time you sharpened your axe?" the boss asked.

"Sharpen? I had no time to sharpen my axe. I have been very busy trying to cut trees..."

Most of us never update our skills. We think that whatever we have learned is very much enough. But good is not good when better is expected. Updating our skills from time to time is the key to success. So 'keep sharpening the axe'. ■

## Availability of Infrastructure / HR in India vs International Status

Technology plays a key role in disaster forecasting and management. The following table presents a picture of availability of technology in terms of infrastructure and human resources in the country vis-à-vis the international status.

Components	Current National Status	International status vs gap areas in the Indian region
1	2	3
<b>Computer Resources</b>	<b>Cyber-2000 (IMD)</b> (Capable of running only existing Regional Model available in IMD) <b>Cray XMP/216</b> (NCMRWF) capable of running only existing coarse Global/ Regional Models available in NCMRWF)	<b>High Performance Computers</b> like IBM-SP2, SGI-SV2, Fujitsu-VPP (CPU more than 400 Gflops) which can run high resolution Cyclone models like MMM, MM5, US Navy- COANS, etc.
<b>Human Resource Development</b>	Adequate <b>expertise</b> in cyclone modeling and prediction not available in the country	<b>Technological transfer and training</b> in advanced countries like USA, Japan <b>Dedicated Manpower &amp; R &amp; D</b> for specific task related to cyclone prediction
<b>Instruments</b>		Satellite earth Stations Telecommunication (Cyclone Proof) for Data reception Forecast/Warning Dissemination Hotlines connecting Forecasters with Managers

The table above clearly indicates that there is still a long way for us to go for making advanced technology accessible to the country. We need to acquire the technology. We need to acquire the skills. We need to train some people to operate the technology. Disasters, whether natural or human-made, are increasing day by day. They are taking huge toll of human and animal lives and also destroying valuable properties and crops. As a developing country India cannot afford to continue it further as the disasters not only destroy existing properties but also hamper future development. There is a great need to put the appropriate disaster management technology in place. ■

# Books

## Book Summary

Name: **Disaster Management in India– A Status Report**

Publisher: **National Disaster Management Division, Ministry of Home Affairs, Government of India**

'Disaster Management in India- A Status Report' prepared by National Disaster Management Division of Ministry of Home Affairs, India gives an overview of the disaster management situation in the country. The report is organized into five sections namely Introduction, Institutional and Policy Framework, Disaster Prevention and Mitigation, Preparedness and Conclusion.

In the introduction chapter the vulnerability of the country to natural disasters and the impact of disasters in the past are discussed in detail. In the context of past disasters experiences, a need to adopt a multi dimensional endeavour involving diverse scientific, engineering, financial and social processes and also the need to adopt multi disciplinary and multi sectoral approach and incorporation of risk reduction in the developmental plans and strategies were articulated. The paradigm shift of the Government of India in the approach of disaster management is also discussed. The new approach proceeds from the conviction that development cannot be sustainable unless disaster mitigation is built into the development process. The report also states that the new approach has been translated into a National Disaster Framework [a roadmap] covering institutional mechanisms, disaster prevention strategy, early warning system, disaster mitigation, preparedness and response and human resource development.

The second section in the report focuses on Institutional and policy mechanisms established by the country since independence for carrying out response, relief and rehabilitation when disasters struck. There is a mention of the new disaster management policy in the report which proposed to establish the disaster management authorities both at National and State level with

specific responsibilities for providing support and assistance by way of resource data, macro-management of emergency response, specialized disaster response teams, sharing of disaster related data base etc.

The third section focuses on Disaster Prevention and Mitigation where the need for mainstreaming disaster management into development is discussed in detail. The report also mentioned various mechanisms adopted by the Government towards disaster preparedness and mitigation such as establishment of hazard safety cells in the states, training of masons in multi-hazard resistant constructions, mainstreaming mitigation in rural development schemes, formulating many awareness programs etc.

Mitigation and preparedness measures go hand in hand for vulnerability reduction and rapid professional response to disasters. Recognizing this, the fourth section of the report focuses on disaster preparedness aspects. This section presents an overview of various preparedness measures taken up by the government such as starting mobile hospitals, including emergency health management in medical education, formulating emergency support function plans, setting up of a India Disaster Resource Network to maintain a web-enabled, GIS based centralized data base etc.

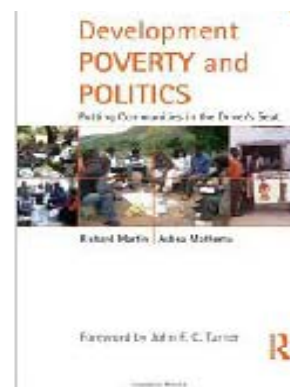
The report concludes stressing on the point that disaster management requires multi-disciplinary and proactive approach. The report calls for the participation of the community, civil society organizations and media in various initiatives being taken up the central and state governments besides various measures for putting in place institutional and policy framework, disaster prevention, mitigation and preparedness. It expresses that this participation plays a key role to play in achieving the goal of moving together towards a safer India. The message being put across the report is that, in order to move towards safer and sustainable national development, development projects should be sensitive towards disaster mitigation. ■

## New Books

Name: **Development Poverty and Politics**

Author: **Richard Martin (author), Ashna Mathema(author)**

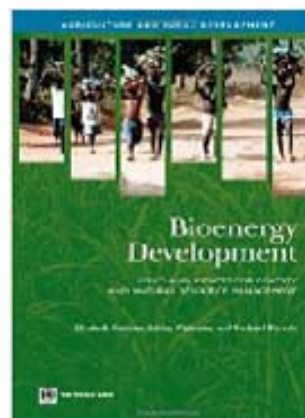
Publisher: **Routledge**



Name: **Bioenergy Development**

Author: **Elizabeth Cushion, Adrian Whiteman (Author), Gerhard Dieterle (Author)**

Publisher: **World Bank Publications**



Name: **Economic and Human Development in Contemporary India: Cronyism and fragility (Routledge Contemporary South Asia Series)**

Author: **Debdas banerjee**

Publisher: **Routledge**



# Disaster Management Institutions in India

There are many institutions in the country that are working on disaster management. Some of them are given below.

### **National Institute of Disaster Management (NIDM):**

The National Institute of Disaster Management (NIDM) functions as nodal centre for Human Resource Development in the area of Disaster Mitigation and Response. The NIDM, in partnership with other research institutions has capacity development as one of its major responsibilities, along with training, research, documentation and development of a national-level information base. The NIDM network with other knowledge-based institutions and function closely, within the broad policies and guidelines laid down by the National Disaster Management Authority (NDMA), and assist in imparting training to trainers, DM officials, etc. Website: [www.nidm.org](http://www.nidm.org)

### **National Center for Disaster Management (NCDM), New Delhi:**

A new center "National Centre for Disaster Management (NCDM)" has been established by the Ministry of Agriculture, Government of India. NCDM is setup in Indian Institute of Public Administration (IIPA) with the objectives of: Providing training programs for senior and middle level administrative government officials and to sensitize them for disaster mitigation and Coordinate the research activities in different aspects of disaster management at national level. Website: <http://www.ncdm-india.org>

### **National Information Center of Earthquake Engineering (NICEE) - IIT Kanpur, Utter Pradesh:**

A National Information Center of Earthquake Engineering (NICEE) has been set up at the Indian Institute of Technology Kanpur. The Center is sponsored by HUDCO, Telecom Commission, Railway Board, Ministry of Agriculture, Department of Atomic Energy and AICTE. NICEE-India will meet the needs of the country in terms of "information" on Earthquake Engineering. The NICEE-India at IIT Kanpur will eventually aim at being responsible for acquiring and disseminating information and capacity building of the neighbouring nations. Website: <http://www.nicee.org>

### **Disaster Management Institute (DMI), Bhopal, Madhya Pradesh:**

The Disaster Management Institute established by the MP Government in the backdrop of the Bhopal Gas Tragedy, offers training, research and consultancy services on subjects related to prevention, mitigation and management of disasters. It organizes training for working managers and government officials relating to the areas of management of natural disasters such as earthquakes, floods, drought, famine and cyclones; on-site and off-site emergency planning; risk analysis; identification of major hazards; etc.

### **Disaster Mitigation Institute, Ahmadabad, Gujarat**

Disaster Mitigation Institute's mission is to equip the disaster victims---individuals or groups or agencies---with the resource to develop progressive solutions to physical, social and economical challenges of relief and reconstruction of facing them. DMI aims to become a premier centre for disaster mitigation and prevention by assisting and strengthening the decision making process and making the critical and objective analysis available to the policy makers. Website:<http://www.southasiadisasters.net/>

### **Environment Protection Training and Research Institute (EPTRI), Hyderabad:**

EPTRI was set up by Government of Andhra Pradesh with the assistance and support of GOI. Government of India had also taken the initiative for EPTRI's technical collaboration with Swedish International Development Agency under bilateral assistance. EPTRI provides training and consultancy in Risk Assessment and Safety Control. EPTRI has a MoU with Process Safety Centre of Indian Institute of Chemical Technology (IICT), Hyderabad. Website: [http://www.eptri.com/risk\\_analysis\\_disaster.html](http://www.eptri.com/risk_analysis_disaster.html).

### **Centre for Disaster Management (CDM), Pune, Maharashtra:**

The Centre for Disaster Management was set up at Yashada (Yashwantrao Chavan Academy of Development Administration), Pune with the support of the National Disaster Management Division, Department of Agriculture and Cooperation, Government of India. The CDM is collaborating with the IGNOU to launch a PG Diploma in Disaster Management in English, Hindi and Marathi. Training programmes on Management of Earthquakes, Workshop on Community participation in Disaster Management, and allied topics are conducted at CDM periodically. Website: <http://www.yashada.org/courses>

### **PRT Institute of Post Graduate Environmental Education & Research, New Delhi:**

PRT Institute of Post Graduate Environmental Education & Research offers the two-year Master of Disaster Control to graduates or working professionals through distance learning. The Institute is engaged in training, research and consultancy in the areas of disaster management, risk analysis, sustainable development, environmental impact assessment, pollution control and monitoring with the idea of optimal development of a global sustainable society. Website: <http://www.technologyindia.edu/introduction.html>. ■

## Out of Poverty

## Informed Decisions help Raju

Raju lives in Bhimulavaripalem village, Thada mandal, Nellore district. It is in the border of Andhra Pradesh and Tamilnadu. When he was in 10<sup>th</sup> class, his father suffered a paralysis stroke due to which he became disabled to work. So his father asked Raju to stop his education and to stay back at home.

Raju's three elder brothers were married by that time and had migrated to other places for work and were not able to support the family financially. Raju had no other go but to discontinue his studies to take on the responsibility of looking after his parents and to stand on his own feet.

Pulikot lake passes through Bhimulavaripalem village. The main livelihood here is fishing. Raju observed the fishermen who were selling their catch to a local person who in turn would sell those fish in the nearby towns at higher margins. Raju also started that business with little amount of investment. He learnt to buy the fish from the fishermen and sell it at a profit in the market. Raju being a quick learner, he established himself in this business and

in a span of 6 years he made himself visible and had earned many good friends. From the incomes he realized in the fish business, he was able to save good amount of money after meeting his family expenses. As his savings were increasing, he started thinking about a new business which can give him more income.

Some of Raju's friends were in real estate business; profitability in this business attracted Raju and created a desire in him to start one. His friends supported his idea; he also had the advantage of knowing two languages Telugu and Tamil, so he started the business in both AP and TN. He quickly learnt the techniques and skills of managing the business in both states and earn profit.

Today at an age of 32 he has well established real estate business in both Andhra and Tamil Nadu. He has built a house for himself and earns sufficient income to lead a comfortable life. What made him what he is today is his never ending eagerness to learn which is complemented by hard work. ■

## Broken Lives

## Business Fluctuations hurt Sivamurthy

Sivamurthy belongs to Alugundu village, Nallacheruvu mandal, Ananthapur district of Andhra Pradesh. He is 47 years old and lives with wife and three children. Two of his children are studying in private convent except his elder daughter who was not willing to go to the school.

Though illiterate Sivamurthy was once known as a good mason and earned Rs. 200/- per day. This income was good as he was able to save money for chits after taking away all the household expenses.

Daily wage labourers from Alugundu go for work to Kadiri and Nallacheruvu which are nearby towns to the village. Other livelihoods in that village are agriculture, sheep and pigs rearing. In spite of the fact that the villages produces many goods and services, it does not have proper transportation facility. Whenever they needed any transport they would have to hire autos from Kadiri and Nallacheruvu.

Observing this need for an auto, Sivamurthy thought of investing his savings and buy a luggage auto and earn another income. His kith and kin were concerned about this decision; they said "The income which you get as mason is more than enough for you and your family, why should you take a loan from finance company and buy an auto; you don't know even driving how you will repay

interest every month. It is not a right decision." He didn't listen to them as he was enthusiastic in starting a new business. Cost of the luggage auto was Rs.2, 00,000/- , he withdraw the chit savings of Rs. 50,000/- and the remaining Rs. 1, 50,000 he took loan from the finance company and purchased the auto.

He appointed a driver for auto and ferried goods to and from Kadiri and Nallacheruvu markets. He was able to earn Rs. 300/- to 350/- per day after paying driver's salary, diesel and pay bribe or fine to the police as he didn't have licence.

As the income was more than his masonry work he stopped working as a mason. But all the days are not same and fluctuations are common. Because of the drought the harvest was less the following year, farmers didn't have enough goods to sell and even the little quantity they were selling they found it difficult to bear auto charges. They started using cycles and bullock carts to bring goods into the village. Demand for the auto fell drastically and Sivamurthy was at loss. He had no other go but to borrow money at high interest rates. He also failed to repay the loan instalments, so the finance company took away auto from him. He was left with no option but to go back to his earlier livelihood of mason work, his wife is also working as a wage labour now. ■

## 'Yoga'kshemam

Food Inflation is near 20%! No signs yet of its downward trend! Si Krishna Committee is set up to assess the ground reality for formation of separate Telangana or otherwise. Resignations of public representatives are being pressed with a perception that the terms of reference of the committee are not for a separate Telangana.

Apart from Sivaratri (12 February) and Valentine's Day (14 February), the month also allowed a few international days to go by – World Day of Social Justice (20 February) and International Mother Language Day (21 February)!

Sustainable Rural Development – livelihoods and resources – the book in 24 units across 6 blocks - has consumed most of the month. Rural, Urban, Tribal, and Coastal farm and non-farm livelihoods, Poorest of the Poor, vulnerable, elders, collectives, collective entrepreneurship, social entrepreneurs and social enterprises, knowledge management, innovations, mentors and mentees, networks and consortiums, volunteers, writers, editors, students and Gandhi, continued to dominate our thinking space in this month.

We are still awaiting the draft business plan for 'livelihoods' from Amber, Elise, and Caroline! Work on the business plan of 'L-channel' is inching forward.

'Fasting' continues as a habit. 'Silence' and 'Thought Silence' – efforts are on. Practice is on. This month, I had an occasion to combine fast with jaagaran!

**G Muralidhar**

This month has 'kept' me in reflection. Being a panelist at Sri Sri Institute of Management Studies in Goa pressed me to see inside on the path I have taken and become a livelihoods worker. Witnessing Empower Trust's Mahatma Gandhi Institute for Comprehensive Mental Healthcare at Guntur has taken me three decades back in life. Those were the times when the seeds of thinking beyond oneself were sown. Talking to Kaushiki Rao has made me search for social entrepreneurship in the marginalized for the marginalized. This reflection is reinforcing the need to draw the contours of the third phase of life. Of course, *the purpose is being useful and giving the world the best we have*. I know that it has to be an offering.

As I get reinforcement, during the month – *we need a home, we need quality time, we need integrated knowledge, we need health, we need love, we need lasting relationships and we need union in freedom and universe*, the reflection continues! As a supplement to this, I have come across the books of Saul Alinsky, John Dewey, Soren Kierkegaard, EF Schumacher, Albert Hirschman, Carl Rogers, etc., apart from Robert Chambers, Paulo Freire, Erich Fromm, and Krishna. They are letting this reflection to pick up momentum!

Danish Ahmed has argued 'being useful' is a perspective or disposition –

*"....Our perspective or disposition can either be positive/negative, and can be instantly transformed through conscious thought. .... Knowledge without direction is dormant stupidity....When you agree or are*

*aligned with varying opinions, then you are not exercising acceptance and being useful.....I market love, hope, and compassion .... I love everybody, in different ways, to varying degrees. ....Connectedness is caring through various forms of expression....."*

Being useful at large includes Satyakarma at the body level, speech level and mind level. To be useful, one needs to be fit. Fitness requires water – as soon as you wake up; 30 minutes before any meal; before bath; and before sleep. Not less than 3 litres a day. Dr Devi Shetty suggests less carbohydrate, less oil, more protein, more fruits and vegetable diet, some walking, no smoking, respecting internal biological clock and simple lifestyle. One need not look for perfection in everything in life.

In the confluence of the souls, and through the gentle flows of universe, **jaagaran visualizing celestial dance of 'siva' with 'sakthi'** reinforces the need to listen to your innermost – 'give me the strength to surrender my strength to thy will with love'. It will ensure you scale *aananda sivathandavam*. Surrender by becoming and being the useful and open instrument – the little flute of reeds!

Can we be this? **Yes, if we pursue Atma Yoga.** The focus is on being fully involved. This begins with – listening (*sraavana*), having faith and communicating (*kirtana*), remembering (*smarana*), rendering service (*seva*), worshipping (*archana*), respecting (*vandana*), be at hand for anything (*dasya*), being attached (*sakhya*) and surrender (*atma-nivedana*). This total involvement can be through being connected, service, friendship, affection, and yoga. This inspires us to move from strong interest to deep and lasting commitment and helps us perform to ability, potential ability, even under extreme odds. This would mean being a flow, flowing with the natural flows of the universe.

Being involved for its own sake in the act, with the mind, heart and body, therefore, being useful, is the way forward. That is Atma Yoga, Atma Yogi in relentless pursuit of *aananda sivatandavayogaamritam*! An entrepreneurial aspiration in relentless pursuit of opportunities as the universe unfolds them, even in the absence of resources! With the mentor in tow!

Krishna (Krishna of Radha, Krishna of Arjuna and Krishna of Krishna) confirms – if our mind is filled with universe, if we become universe's devotees, if we pursue what universe wants and nothing else, if we bow down to universe and thinking of universe forever, if we take universe itself as the supreme goal, universe conspires to take us into it. Guaranteed! Seeking yoga in whatever dimension(s) we are capable and ready is our involvement. Then, universe will take charge, build capacity and readiness and grant silence, peace and flow with its free and natural flows. Forever! This is bliss!

Join us in the world of yoga – yoga of usefulness, pursuit, devotion and action in all dimensions of our being as it guides and innermost *aanandasivatandavayogamritasiddhi* in every minute of life. You will not regret it. ■

# India Climatic Disasters Risk Map

