Chapter 4: STORY OF CHESS

Several communities all over the world suffer the impacts of pollution of their air, water and land. Many of these are farming and fishing communities, who are affected even more, as the land and water are also their source of livelihood. Yet we see an increasing number of communities being buried under the weight of toxic chemicals and other pollutants in the wake of development.

This situation called for a struggle, not just for environmental justice but also for health justice. Health, it was realised, could be a powerful tool in this struggle. And so began the initiative of Community Health Environment Survey Skill-share or 'CHESS' in 2001. The brain child of community health practitioners and environmental activists, this initiative created a platform for communities impacted by pollution to express their struggle and the effects of the pollution on their lives and livelihoods. This simultaneously created a platform for health researchers to find meaningful and relevant research topics. Since 2001, this venture has seen four national level workshops, each covering several themes including industrial pollution, pesticides, toxic chemicals, mining, occupation health and lay epidemiology. In fact, lay epidemiology stands as the crux of this initiative. CHC co-hosted three of these workshops, providing resource persons for facilitating sessions on participatory research and lay epidemiology.

Through this initiative, several communities were empowered with the skills of systematic documentation of exposure and health related events. Skills and experiences are shared between the health workers of affected communities, and also between academicians and community health volunteers from affected areas.

Partnerships have evolved as a result of these workshops, and CHC has, in various capacities, been involved directly with affected communities in each of those cases. CHC members visited Kasargod in Kerala in an effort to video document the community's

plight resulting from the aerial spraying of a pesticide endosulfan, and provided scientific inputs to the local groups attempting to study the health impact that had taken place. Evidence being shared by the company was also critiqued in a scientific manner.

The involvement with pollution impacted communities in Tamil Nadu has been more extensive, especially on the case of mercury pollution by the thermometer factory currently owned by Hindustan Lever Limited at Kodaikanal. The factory workers group was supported through medical examination, documentation of health problems, providing testimonies in the ongoing court case, and in reviewing and critiquing health related documents produced by the company.

In Cuddalore and Mettur in Tamil Nadu, polluting industrial complexes had decreased the quality of life and impacted livelihoods of the local population. In each of these places, efforts to document and communicate environmental pollution through community monitoring techniques by local volunteers are ongoing. These volunteers were also trained regularly in the identification and documentation of health impacts of pollution.

In Karnataka, manual scavenging still thrives, making it hard to believe that we live in the 21st century. Groups working for the upliftment of this oppressed community also participated in a CHESS workshop which helped build the bond with CHC. A project was taken up to study the health situation of manual scavengers in Chitradurga. This occupation poses a major risk to health through direct (suffocation while working in man-holes) and indirect means (rampant regular alcoholism prior to work hours). Groups working with manual scavengers (such as Thamate and Jeeva) now play an important role in the Karnataka State Chapter of the Peoples Health Movement.

These and several other communities in South India were assisted in one or many ways in their struggles by SOCHARA members, some of which have been described in the section that follows.

"CHESS is a national collective of people, communities and groups working against toxic pollution created by a range of unsafe and unsustainable activities (mining, industrial estates, waste dumping, pesticides, tanneries, radiation etc)" (46).

Community Health Environment Survey Skill-share

The idea of CHESS arose following discussions between environmental activists and CHC-SOCHARA. Greenpeace and other environmental groups approached SOCHARA in 2001 as they had encountered difficulties in court cases against polluting industries in several communities in India. (47)(48). Involvement in the Bhopal campaign had brought CHC-SOCHARA some credibility in the field, and they were approached to help strengthen health related epidemiological evidence for pollution impacted communities (7). A dialogue between interested groups was set up and a network of environmental activists was built to contribute to the process of CHESS workshop 1 (47). (49)

Box.13: Aims and intentions of CHESS:

The Aims of CHESS (49) are to equip community campaigners and health professionals to:

- Perform community health surveys
- Apply their results subsequently in campaigns

The intention (49) is to:

- end pollution
- hold polluters liable for full and long term rehabilitation of survivors' lives and their environment, and
- plan for means to initiate health care interventions to provide immediate and long term relief for victims of industrial pollution.

Participants at the various CHESS meetings have included activists and medical practitioners from pollution-affected communities, occupational health doctors/activists, community health professionals/activists, toxicologists, lawyers, workers, and representatives from trade-unions, consumer groups, farmers groups, and researchers (49). For NGOs, CHESS is a forum where they get exposed to the kind of

integration needed and the scientific thoroughness required for success of their campaigns (47). CHESS also presents a two-fold opportunity for researchers

- to find out the important EOH problems that need to be studied, and
- to make their skills useful to peoples' needs

CHESS workshops

As CHESS is a network without any individual ownership, the process of deciding the agenda for each workshop has been through participatory process (47).

CHESS Workshop 1 was held at United Theological College, Bangalore between the 13th and 15th of August, 2001. CHC-SOCHARA, Thanal, CorpWatch and Greenpeace organised the event. The platform brought together health professionals, community representatives, NGOs working on local issues, lawyers, and consumer groups. Its aims included (48)(32).

- Equipping community campaigners to perform community health surveys
- Using study results to empower themselves and assert their 'right to know'
- Ensuring the results are used to force polluters to pay for damages, which include clean-ups and compensation for people's health problems

Those in attendance included 23 resource persons from CHC-SOCHARA, Greenpeace, Toxic Link, ROHC and St John's Medical College, and 15 campaigners from Thanal (Kerala), Paryavaran Suraksha Samiti (Gujarat), Citizens for Alternatives to Nuclear Energy (Bangalore), Mines Minerals and People (Hyderabad), Palani Hills Conservation Committee, Endosulfan Spray Protest Action Committee (Kasargod), Periyar Malinikaran Virodh Samithi (Eloor), Chintan Environmental Research and Action Group (New Delhi) and other individuals (32)(50). Communities struggling against toxic pollution shared their experiences with the researchers. This was followed by a discussion to identify the main health concerns, the planning of health studies and the difficulties to conducting an epidemiological study in each of those situations (47). The effects of pollution on human health emerged as the main issue for discussion. CHESS became a forum for sharing skills and information on dealing with the threats to health from industrial pollution.

CHESS Workshop 2 was a much bigger event and was held at Visthar, Bangalore between 26th and 28th of July, 2002. It served as a follow-up to the first workshop. Approximately a hundred participants representing fifty groups (51) including resource

persons from National Institute of Occupational Health and other epidemiologists from various regions attended this event. The intention was to provide the community groups with regional contacts of research professionals. Financial support for this event was partly obtained from Global Green Grants Fund (GGF), USA (52). The workshop focused on

- Hands-on skill training in lay epidemiology
- Conducting health surveys
- Dovetailing efforts to develop national policies and
- Strategies on key thematic areas such as pesticides and health; industrial effluents and health; radiation and health and corporate liability.

The workshop was attended and co-facilitated by Dr Elizabeth Guillette, a renowned epidemiologist from the US, who has worked on issues of children's health in connection with pesticide exposure especially in relation to physical and mental development. Three discussion groups were created to discuss problems of pesticides, industrial pollution, and toxins respectively.

'A Lay Epidemiology Module for Activists and Campaigners' (53), aimed at those who have no training or experience in epidemiology, was prepared at CHC-SOCHARA and distributed to all the participants. It covered subjects such as: basic epidemiology, bio-statistics, planning of health studies, designing questionnaires and surveying. The need for a scientific temper among activists and the strengths of good science were highlighted (51). The document's table of contents has been presented in Box.14.

CHESS Workshop 3 was conducted in August, 2004 by Mines, Minerals and People (MMP), Hyderabad. CHC-SOCHARA team members were minimally involved in the organising of this workshop, and just attended as delegates. Issues related to mining and health was the specific theme of this workshop.

CHESS Workshop 4 was conducted by CHC-SOCHARA and Corporate Accountability Desk (CAD), Chennai at Vishranti Nilayam, Bangalore, between 28th and 31st of August, 2008. The theme of the workshop was occupational health of the unorganised sector. Occupational health is a much neglected issue despite workplace hazards, injuries and deaths rising to disaster-like proportions (54). The workshop was divided into two parts:

- Prioritising Worker's Health: A Strategy-cum-Resource Sharing Workshop held on 28th and 29th

Box.14: Table of contents: *'A Lay Epidemiology Module for Activists and Campaigners'* (CHC publication) (53)

Definition of Epidemiology

Uses of Epidemiology

Iceberg of disease

Concepts of causation

Risk factors

Concepts of prevention

Modes of intervention

Validity

Reliability

Sensitivity and specificity

Tools for measurements

Incidence

Prevalence

Associations and causation

Criteria for attributing causal association

Why survey

Rationale of epidemiological survey

Aims of survey and other epidemiological studies

Epidemiological approach

Asking questions

Making comparisons

Survey

Formulation of hypothesis

Uses of survey

Sampling

Design of questionnaires

Pre-testing

Epidemic and its investigation

- Occupational Health and Safety Training held on 30th and 31st

Figure 11: Delegates participate in a group activity at CHESS-4

The meeting aimed to bring together people of various capacities assisting workers' struggles for medical and economic rehabilitation, better health and working conditions. This included trade union representatives, labour support groups, public interest doctors, industrial hygienists, scientists, lawyers and academics. The Occupational Safety Training was conducted by Asia Monitor Resource Centre; a Hong Kong based labour rights and resource group (54).

SOCHARA is in direct regular touch with just few of the groups that attended the workshops. Formal feedback was not collected and follow-up was not done, which makes it is difficult to comment on whether the attendees' expectations were met. But informal interactions suggest that there was improved awareness on the importance of health evidence among environmental activists (47). It was also noted that activists were impacted more by CHESS than researchers. Hardly any new researchers join the initiative each year. There is a need for many more researchers to join the group (47).

Figure 12 shows the various ventures that arose following each CHESS workshop. Figure 13 shows the CHESS project areas of SOCHARA. These workshops are a rare forum which provides a platform to democratic dissent the poor accountability by the state and industry towards maintaining healthy environments. By providing a space for sharing, it also improves morale of those working on these challenging issues (47). It is however difficult to comment on the future direction of the CHESS initiative as no group individually owns it (47).

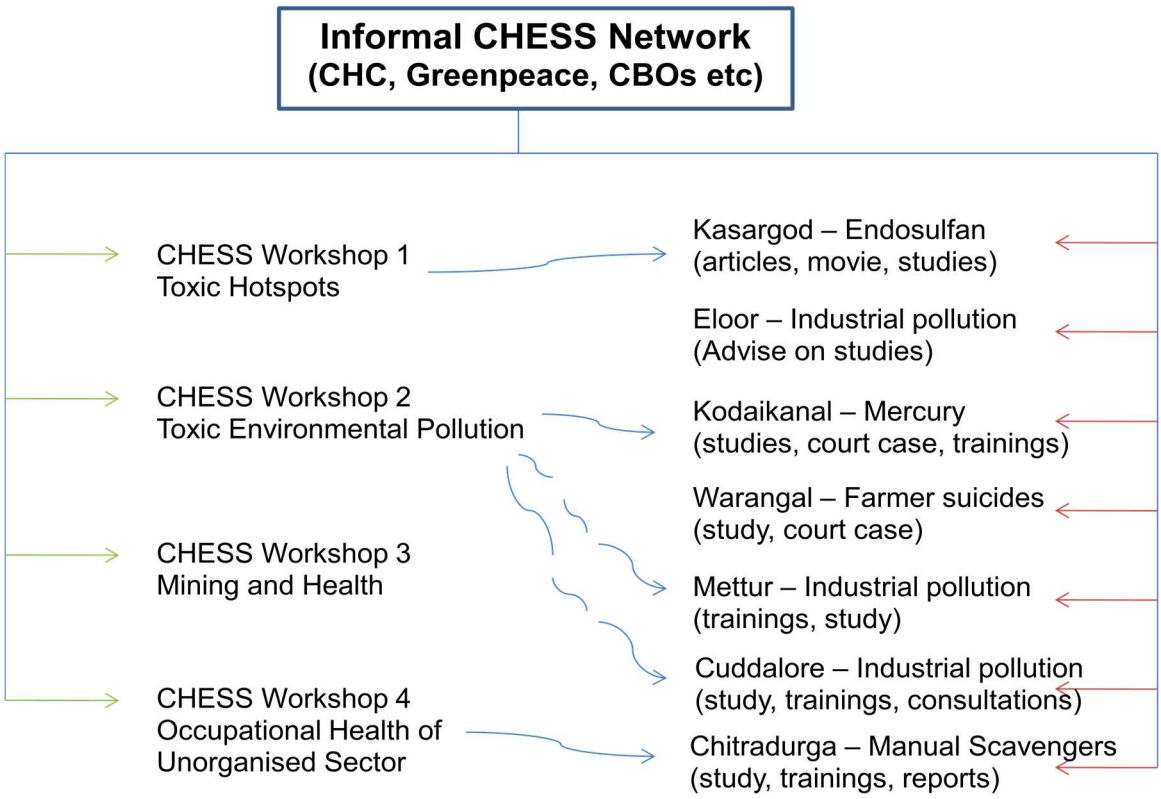

Figure 12: Understanding CHESS - how networks and ventures developed

Figure 13: Map showing the project areas associated with CHESS

CHESS in Kerala

Kasargod's struggle for a clean environment

The cashew plantations of Kasargod were being sprayed aerially with a pesticide called endosulfan by the Plantation Corporation of Kerala. This was done twice every year between 1978 and 1998. During this period the environment and human health in Kasargod suffered severely with the disappearance of several animal species from the area and the occurrence of unusual health outcomes in the local population including abortions, congenital defects, mental retardation and cancers. The campaign to ban the aerial spraying of endosulfan intensified in 1999.

In January 2001, a representative of the pesticide industry visited CHC to provide alternative evidence on the health and environmental impacts of endosulfan (7). To verify the company's claims on endosulfan, a review report was prepared by fellows at CHC which showed that endosulfan is a persistent and toxic chemical (55).

Some CHC-SOCHARA members visited Kasargod between 18th and 25th of January 2002 where they met Dr Romeo Quijano, a senior toxicologist from Manila, and Dr Revathy, from Pesticide Action Network, Malaysia. The affected villages were visited and evidence was collected on video camera by Dr Raj Kumar of SOCHARA. The video documentation led to the creation of a short film *'Sprays of Misery'* (32)(56).

After years of struggle, aerial spraying of endosulfan was stopped in Kasargod, and the use and sale of endosulfan was banned in Kerala following a high court judgement. Though health outcomes continue to plague affected families, the health profiles in the previously contaminated areas are improving with time (57).

Eloor's deteriorating health due to industrial pollution

Eloor is a village on the banks of river Periyar near Kochi, Kerala. It is home to several industries including the only DDT producing plant in the world (Hindustan Insecticides Limited), and a thorium[19] enrichment plant. Eloor is one of India's toxic hotspots. Results of tests conducted on the water from Periyar river and the local environment showed

[19] A radioactive element

evidence of severe pollution, following which Greenpeace decided to conduct a heath study there in 2003.

Figure 14: Fact-finding mission at Eloor

CHC team members contributed as advisors in the epidemiological study at Eloor (58). The aim was to document the health status of the local population in comparison to a control group in a nearby village. The campaign is an ongoing one, and the local activists succeeded in pressuring the government to supply fresh water to the area, and to commission a more comprehensive health study. The pollution however has not been abated yet.

CHESS in Tamil Nadu

Partnerships between local groups in Tamil Nadu, Corporate Accountability Desk (CAD, an activist group in Chennai) and CHC began with the second CHESS workshop. Soon after the workshop, a study was conducted at Kodaikanal by SOCHARA members, which contributed to the highlighting of health impacts in the overall campaign. Some work was also done with the stone cutters in Mahabalipuram for which a questionnaire was developed and employed to monitor routine health impacts of the occupation (47).

The work in Cuddalore was initiated in 2006. There is a strong community led campaign in Cuddalore which has resulted due to systematic documentation and sustained support from activists (47). The campaigns in Kodai and Cuddalore are however affected by corporate influence, interference and apathy (47).

Figure 15: Community health activists from Tamil Nadu participate in a body-mapping exercise

Mercury pollution at Kodaikanal

Kodaikanal was home to the Pond's Thermometer factory since 1984. In 1997, Unilever took over the factory and the plant was renamed Hindustan Lever Limited (HLL) Thermometer factory. After almost two decades of operation, issues of environmental pollution, mishandling of wastes and worsening health of workers was brought to light by concerned groups like Greenpeace, CAD and CHC-SOCHARA (59). An initial visit by a medical team from SOCHARA encouraged the workers group to take the campaign further.

The company commissioned a study on the health status of workers and the environment in the factory, and presented the findings to the SOCHARA team. It was based on a sample of 255 workers in the factory. The SOCHARA team was not given a copy of the report either prior to the discussion or after it. SOCHARA's peer review, based solely on the information provided in the computer presentation (60), concluded that:

- there was lack of clarity in the study objectives
- occupational history of the workers was not adequately considered
- inadequate use of data on health from company records
- absence of exit interviews (when employees leave the company)
- average values of parameters presented without providing the range
- further analysis of those with higher urinary mercury levels needed
- quality control of lab tests not undertaken
- data was not analysed against all guidelines
- personal level monitoring of local environment would be a more accurate exposure measurement option (61)

Box.15: Preliminary neurological investigation in Kodaikanal, TN

Dr. Mohan Isaac and Dr. Praveen had visited Kodaikanal to conduct a preliminary assessment of workers potentially exposed to mercury during their tenure with the thermometer factory (61). Thirty workers were examined on 27th July, 2001 and this included former and current workers. Findings and suggestions made were:

- no neuro-psychiatric symptoms/signs

- frequent ill-health

- health problems cited as main reason for resigning from job

- need for a complete assessment of all workers

Though it was a small study, it did a great deal for the campaign, and has been quoted

The CHC team was also invited by the Executive Committee meeting of the HLL factory workers union at Kodaikanal to make a presentation to the High Court Committee on behalf of the workers (62).

In 2009, the company eventually submitted its plan for cleaning the premises. A new debate has emerged on whether the "planned activity" would be adequate to decontaminate the area. SOCHARA has continued to be involved in this campaign by supporting the lawyers in investigations, critiquing health reports published by the company scientists, and providing technical medical inputs to the workers group (47). The Kodaikanal campaign highlights the importance of health based arguments while demanding justice.

Industrial pollution at Cuddalore

This town of coastal Tamil Nadu houses a SIPCOT[20] industrial complex with many pharmaceutical and chemical plants. Ironically, these pharmaceutical industries which produce life saving medicines are polluting Cuddalore's local environment with hazardous waste. Seeing their local environment getting polluted, residents got together to form the Local Area Community Environmental Monitoring Committee to systematically monitor the levels of pollutants in the area.

SOCHARA team members have participated in public hearings organised by the group (63), reviewed company reports, prepared factsheets on the polluting chemicals, given inputs to reports (64)(63)(65), helped lawyers prepare for cases, and also provided technical advice during gas-leaks and spills (66).

The community based health volunteers at Cuddalore attended the third CHESS workshop, and received additional inputs through another workshop conducted in Cuddalore by CHC team members. A plan was made for surveillance of health and developmental problems in local children, and this is yet to be implemented (62). The local group is committed to the cause, and strives to improve the situation through evidence gathering and advocacy.

Figure 16: a) Dr Rakhal at a public hearing at Cuddalore, TN; b) Dr Sukanya conducting a workshop at Cuddalore, TN

(52)

[20] SIPCOT: State Industries Promotion Corporation of Tamil Nadu. More information at: http://www.sipcot.com/

Box.16: Global Greengrants Fund

Dr Thelma was a member of the Grant Making Advisory Board of the Global Green Grants Fund during the year 2003-04. She helped channelize funds for some of the environmental health activities including the CHESS trainings and Community Environmental Monitoring activity (52).

Industrial pollution at Mettur

Another town affected by industrial pollution in Tamil Nadu is Mettur. River Cauvery and the agricultural land around the polluting factory have been polluted by a “cocktail” of toxic chemicals.

SOCHARA was approached for professional inputs by activists from CAD. Compared to the community campaigns at Cuddalore or Kodai, this campaign lacked structure and strength as the community based group was not well settled. This led to an ad-hoc involvement.

The West Gonur Farmers Association is the primary campaigning group fighting a legal battle for "loss of ecology" of their farm lands due to the pollution by the Chemplast Sanmar factory. The health related advocacy served as an adjunct to that case. (67)

Box.17: A report titled ‘*Unfolding Disaster – A study on Chemplast Sanmar's toxic contamination in Mettur*’ (67) was released in November 2007 by Corporate Accountability Desk, Chennai in which Dr Rakhal has remarked, “the widespread presence of excessive levels of atleast 17 chemicals with known harmful effects and the possible combined effects of long term exposure to a cocktail of 52 chemicals points to nothing less than a potential public health disaster.....unless this dangerous situation is addressed urgently, there is potential for serious, unpredictable and potentially irreversible consequences as well as long term damage to environment, livelihood, food and water”.

In 2007, eighteen workers were screened for health effects, of which three were found to be possible victims of vinyl chloride, chlorine gas and mercury exposure respectively. Christian Medical College (Vellore) further evaluated the three patients, one of whom was labelled as possible case of mercury induced peripheral neuropathy. This statement was however retracted by the college when the company produced a leprosy certificate for the same employee (47).

SOCHARA team members along with other health researchers critiqued a health study commissioned by the company (68). This study, which stated that there was no pollution or health impact due to the Chemplast Sanmar's activity at Mettur, was not peer-reviewed and was deficient in its rigour in addressing the stated objectives. Several gaps in the methods and analysis were highlighted.

(47)

Box.18: Reflections on the campaigns in Tamil Nadu: Dr Rakhal suggests that the main components of a powerful and potentially successful community campaign are the presence of a strong local community group, technical support for the research work and the assistance from activists (47). Since Mettur has had problems, mainly from the point of view of a strong community group focussing on health, it has been different from the other campaigns. That is the main stumbling block at Mettur. The Kodaikanal and the Cuddalore campaigns have stronger community groups, support from activists and also availability of technical support (47).

CHESS in Karnataka

Kolar mines – an occupational and environmental health issue

Kolar is the home to several thousand families who had been dependent on the gold mines for livelihood. These families suffered following the closure of mining operations in March 2001.

SOCHARA undertook a study on the health issues being faced by these families. For the study, the workers colonies in Kolar were interviewed. The data showed (i) occurrence of starvation deaths (ii) each family had unpaid debts (iii) high rates of suicide (iv) rising

levels of mental ill health and chest related problems (v) anaemia among women common (69).

The situation's background was compiled into a conference document (70) in November 2004. It reported a large number of starvation deaths. Family members attributed over sixty deaths to 'stress and agony' from closure of the mines. There were no ration shops to take care of the families' nutritional needs, the company hospital was closed, and the poor sanitation facilities could potentially cause outbreaks of infection. The company had withdrawn water, sanitation and electricity services of the community.

The mill tailing dump, a cyanide laden health hazard from processed ore wastes, was found to occupy ten percent of the total area of the workers township. There was also a need to address the deplorable living conditions in the workers colony and the loss of employment. Several meetings were conducted to call for solidarity and action from concerned groups for the betterment of the mine worker's colony at the gold fields. The issue of human rights violations at KGF were also discussed with the local municipal director (71).

Follow-up of this campaign was interrupted due to relocation of team members responsible for it. Such interruptions are commonly seen in community based campaigns which take technical support from outside. Hence the effort is made to empower communities with requisite skills to lead their own campaigns.

Work with the manual scavenging community at Chitradurga

Following the third CHESS workshop, a research exercise was initiated with a group called Jeeva in Chitradurga. The group worked towards safer employment and better compensation for the marginalised community of manual scavengers. Some members of the scavenger community were rehabilitated into other occupations. SOCHARA documented their health seeking behaviour and the health problems faced due to their occupation (72)(73). Engagement with community based organisations continues, and some of them also represent local chapters of the Peoples Health Movement. (74) (51)

Box.19: Silk workers and child labour study (74)

Karnataka is the silk industry hub of India. The unfortunate reality behind this, at least formerly, was that several children were involved in each stage of the production cycle. Movements for Alternatives and Youth Awareness (MAYA) along with support from SOCHARA members conducted a situational analysis of child labour in this industry in 2000 to advocate for further action on the issue with the government and donor agencies. Some areas in Channapatna and Ramanagaram were chosen for the survey, and it was found that 1591 children were employed in this industry in those areas. An occupation health study on the effects of sericulture work in filature units on health of children was conducted in Ramanagaram (control group in Malavalli) by Dr. Rajan Patil in association with Department of Paediatrics, St Johns Medical College, Dr Om Prakash, St Martha's Hospital, and Rotary Hospital, Ramanagaram (51).A socio-economic survey was conducted to analyse the links to child labour and SES. It was found that poverty was not the main determinant of child labour, but rather due to "sheer neglect and indifference on the part of the parents, community and the state."

(75)

Box.20: Pollution at Medak, Andhra Pradesh

This village is another industrial area which has documented pollution. There was a study conducted there by Greenpeace for which Dr Thelma served as an advisor. *'State of Community Health at Medak District'* (75) was the report released by Greenpeace for which Dr Thelma and Dr Mohan Isaac were advisors.

(76)

Box.21: Warangal, Andhra Pradesh: the case of farmer suicides

Warangal, a cotton growing area in Andhra Pradesh, was a hotspot for farmer suicides. Toxic link, Sarvodaya, Centre for Research Education and CHC partnered in a fact finding mission to study farmer deaths in the light of the reported occupational exposure to pesticides. A report of the fact finding mission *'The Killing Fields – Farmer deaths due to exposure to pesticides in Warangal'* (76) was published in January 2002. Dr. Rajan Patil of CHC was a part of the fact finding team. The report was on the use and misuse of pesticides in cotton cultivation, occupational toxicity and environmental impacts of pesticide use (based on absence of avian fauna in the area, a detailed ecological investigation was recommended). It was reported that the areas around Warangal were the highest consumers of pesticides in the country and an estimated 500 deaths were occurring due to pesticide spraying in Warangal each year during the spraying months from September

Other CHESS associated activities

The Bucket Brigade Conference

Figure 17: Dr Rakhal explains toxic exposure, symptoms and disease.

The four-day International Bucket Brigade and Community Environment and Health Monitoring Conference was held in New Delhi in February, 2008 (77). It was organised by Community Environmental Monitors (CEM), CHC-SOCHARA and Global Community Monitor and was attended by 40 delegates from India from 15 pollution impacted communities and 10 international delegates from pollution impacted communities in their own countries (US, Russia, Kenya, South Africa and Thailand). The conference provided a venue for sharing local and global experiences in community monitoring, especially the use of environment monitoring as a tool for community mobilization, understanding the nature of chemicals and their toxicity, and campaigning for change using health evidence.

SOCHARA team members, being resource persons for the workshop, presented on several topics including concepts of health, determinants of health, concepts of health monitoring, and limitations of science and causal theory. They were also involved in planning and organising the sessions of the workshop (78). Later that year, a CHESS workshop on community monitoring (62) was conducted at Cuddalore for the communities affected by pollution by Dalmia Cement Factory and the ONGC pipelines (79).

The CHESS initiative, with its unique agenda hopes to bring about unity among communities struggling for a common cause and support them with professional inputs. A participatory exercise is needed to measure the extent to which the objectives were satisfied, and to understand the strengths, weakness, opportunities and challenges of this process.

'Infochange Agenda' issue on occupational health

SOCHARA members along with Madhumita Dutta and Nityanand Jayaraman edited an issue of the quarterly journal Infochange Agenda, on the theme of Occupational Health in India (80).

In the editorial *'Introduction: Work can kill'* (81), they highlighted that 40,000 workers die each year and several more get affected with occupational diseases, most of which are seen in the informal sector. These figures are in stark contrast to the official figure of 1,624 deaths. The poor documentation and data on occupational health in the country was attributed to poor reporting systems and coverage. Most of the deaths and illness among workers was occurring in the informal non-unionised sector, primarily in families which lie at or below the poverty line. Occupational health research was also being influenced by private firms.

Testimonies of workers suffering from occupational diseases were presented. These were followed by articles by various authors on themes including: occupational health policy in India, saltpan workers, legislations for workplace safety, chemical exposure, construction industry, garment workers, pesticides, "controlled use", sanitation workers, software industry, ESI, mercury, "survival over safety".

SOCHARA members also contributed to two articles. The first article, *'The neutrality of science'* (82), talks about the neglect of occupational health research especially with respect to the unorganised sector. Scientists, while focusing on "method", were not focusing on research questions which were important from the community perspective. Also, appropriate dissemination of data was not being done. Communities had inadequate scientific support and advice in times of need. The scientific agenda and the science itself were also being influenced by corporate powers.

In another article titled *'ESI roadblocks'* (83) the plight of workers attempting to access Employee State Insurance services was highlighted. Despite deductions being made from their salaries, eight million workers and their families were finding it difficult to access ESI services and schemes. Most first contact ESI dispensaries were non-functional. The workers were not even aware of the several benefits and entitlements under the scheme. To further increase problems with access, forms were not being made available in local languages, and excessive amounts of paper work were needed for claiming benefits. A couple of case studies of patients involved in legal tussles with ESI for compensation were also presented.
(84)

Box.22: Interventions to reduce air pollution related health risks – workshop (84)

This two-day workshop was organised in Bangalore in January, 2008 by Cerana Foundation and Karnataka State Pollution Control Board and sixteen institutions including CHC, St John's, VHAI, CPCB and BBMP and was attended by over 120 participants including students, doctors and policy makers. It was open to the citizens of Bangalore and the agenda was to map issues and concerns of different communities suffering from polluted air (indoor/outdoor) and to strategise locally to work towards change. Thelma and Sukanya were involved in the planning of the workshop. Sukanya also participated as a resource person and spoke on the topic "Community Health and Air Pollution". The presentation introduced the audience to approach the problem through a balloonist view to understand to causes behind causes of air pollution which are affecting communities. A community health approach was suggested as the appropriate cost-effective way of reducing ill health because of air pollution. CHC committed to work with the steering committee to tackle air pollution related health risks by strengthening capacities in community health.

(85)

Box.23: Report on asbestos workers' health and struggle for compensation (85)

Dr Rakhal Gaitonde of SOCHARA and Madhumita Dutta of Other Media conducted a series of visits, meeting and interviews at Mumbai in November 2007 with former workers of an asbestos factory – Hindustan Composites Ltd. The objective was to document the workers' struggle for compensation for the health impacts of the job. It was found that a large number of workers had been diagnosed by physicians as having asbestosis, but even this was not helping them claim rightful compensation from the company due to poor judicial support, and this had led to a deep sense of betrayal among them. Over two years had gone by in waiting for a court hearing date. In 2004, 41 workers were confirmed to have asbestosis among the 183 tested. The interviews further showed that the precautionary and safety measures taken at work were inadequate, causing the workers to get exposed to asbestos dust (despite suction machines clearing upto 70% of the dust) and to other hazards like organic solvents. Regulatory authorities too allegedly never inspected the plant, and conducted air sampling at the main door and the canteen areas. The company also had strategically decided to hire contract workers on a periodic basis from the 1980s to reduce liabilities and the possibility of unionisation among workers. The workers themselves, though aware that the job was dangerous were not informed about the dangers, and they didn't see any other options for employment either. Even the doctors performing yearly checkups never gave them any advice or reports on their health conditions.

The workers reported increasing cough, breathlessness and tiredness with increasing years of work. Also, many alleged cancer deaths among ex employees were reported. The authors comments that despite the lay approach of this paper, a very high risk for cancer had been demonstrated. With the post of the compensation commissioner vacant, and the strong company lobby, the workers are of low morale for claiming for their compensation, and their health continues to deteriorate with the wait.