

**ANKLESHWAR INDUSTRIAL AREA:
BEHIND IRON GATES**

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PREFACE

Gujarat, considered to be number 2 in industrialization among Indian States has in all 182 Industrial areas developed by Gujarat Industrial Development Corporation. Ankleshwar became known to this country earlier when ONGC found large deposits of Oil in this area in early sixties. A belt in Gujarat, Starting from Vapi in South to Mehsana in North is now known as 'Golden Corridor' among Industrial circles. Ankleshwar happens not only to be nucleus but the largest Industrial area in this belt. First phase of its development started in 1974. Barely within 20 years 1600 acres of land is now exhausted. Government had to develop neighboring areas like Panoli, Valia, Zagadia and Vagra as Industrial areas. On one side it has attracted large number of people to migrate to Ankleshwar for employment on the other it has created number of social problems. Problems of living and environment are important. Farmers have lost precious agriculture land at throw away prices and remaining land is badly affected by polluted effluents. Narmada estuary is polluted affecting marine life. Industrial Workers are perhaps worst affected. Workplace pollution is beyond limits. Unsafe conditions have taken sacrifice of hundreds of workers. Hundreds have been maimed and hundreds are suffering from ill health when industries have prospered like anything. Hardly 10% workers are organized. But struggle continues for better living. Pace of so called progress is going to be fast in this era of globalization & privatization. Even now if society, in general, remains apathetic to the real problems it will ruin its existence very fast. To save human kind from the disasters early actions on large scale are needed. This report is an humble, first step in this direction.

I thank PRIA for giving me this opportunity to peep in the large area. My sincere acknowledgements are due to Shri Nilesh Parmar, Shri B. D.

Navale, Shri D. C. Solanki, Dr. Haresh Shah and other friends for sparing their time and valuable information for the report.

I hope, this initiative will go a long way to change the situation in Ankleshwar.

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Ankleshwar Ind. Area: Behind Iron Gates.

Background:

Ankleshwar, situated on Bombay - Baroda broad gauge railway track is 336 K.M. north of Bombay and 84 K.M. south of Baroda. In 1600 acre land Gujarat Ind. Development Corporation (GIDC) developed industrial area at Ankleshwar in Bharuch district. The area was declared as notified by GIDC in 1974, when Ankleshwar was a tiny town with 28000 population. Today the population has reached 1,00,000. It provides direct and indirect employment to about 1,00,000 people!

Today more than 1400 units exist in the estate with total investment of Rs. 2000 crores and is the largest chemical industrial estate in the country. Special issue of Business Abhiyan, a Gujarati weekly reports 1300 units in Dec.' 1993 with 71 as large, 30 as medium, 700 as small scale and 500 as tiny units. The growth is phenomenal in short span of time. It has 238 Chemical, 222 Engineering, 204 Textile texturing, 158 Dyes & Dye intermediate units. 70 Pharmaceutical, 30 Paper & Packaging units and 80 Plastic - Rubber - Leather units. It also has few glass, wood & food processing units.² About 12 to 15 % of Pharmaceutical and bulk drug production of the country, 12 to 15% of Dyes & Dye intermediate production of the country, 19% of Pesticides and 30 % of texturising production of the country is done here in Ankleshwar.²

It is estimated that 15% of the units are sick units.¹ Factory. Inspectorate found 19 closed units. (out of 162 total units) While Mr. C. G. Pandya 53 closed units (out of total 259).⁵

In 1986 Factory Inspectorate of Gujarat took up project of identification of chemical factories. Accordingly it identified 143 chemical units in Bharuch district with 103 as hazardous units. The Gujarat Factory Inspectorate has now identified 216 major accident hazard (HAR) units in

Gujarat. 27 i.e. 12.5 % mall units are situated in Bharuch district 25 out of these 27 are situated in Ankleshwar - Panoli area.

Revenue & Business:

Among 1400 industrial units more than 10 multinationals own their units. Glaxo, Hoechst, Pfizer, Searle, Walkhardt are some of the multinationals. GIDC developed the estate by, constructing industrial sheds and providing land for construction. Development of 5 phases has completed and development of phase 6 is under progress. It has constructed 79.21 km. of roads in the estate.² Total turnover of the units is estimated to be Rs. 3000 crore per annum. The industries pay Rs. 200 crore to Central Excise every year & Rs. 50 crore to state government by way of sales tax. Gujarat Electricity board earns Rs. 100 crores per annum while Telecom earns Rs. 4.8 crore per year from this estate. Ankleshwar has highest no. of high-tension connections given by Guj. Electricity Board in Gujarat. Total power consumption 100 Mega Watt. Water is supplied from the Ukai dam. GIDC earns Rs 4crore yearly by way of water tax. Industries pay about Rs. 250 to 300 crore as octroi (toll). But since GIDC is a notified area, Ankleshwar Municipality has not benefited. Instead, because of rise in population Municipal expenditure has gone up to Rs. 15-20 lakhs par year.⁵ About 30% of the products produced here is exported. Dyes, Apparels, Safety shoes, Hand-gloves are some of the items exported. Transport and scrape business, too, has developed significantly. Till 1978 there were only 5 transport companies. While today 125 transport companies have their offices in Ankleshwar. Annual turnover of transporters is Rs. 300 crore. Daily they carry 5000 ton of goods. 1000 families are engaged in scrape trading. Ankleshwar Ind. area has grown from 60 hectares in 1974 to 1600 hectares in 1995 mainly due to incentives given by Govt. of Gujarat by tax relief, availability of water & electricity, cheap labor and it's location on National

highway no 8 as well as Bombay- Delhi broad-gauge railway tract. Before being developed as industrial town, people in Ankleshwar used to live on agriculture and handloom. After development, agriculture production has gone down by 50% and all hand looms have been closed down. After industrial development, service sector also has been developed. There are about 300 units providing various types of services & goods. Printers, Electrical Contractors, Maintenance & Repairing, Stationary, Motor rewinding, Advertising & News agent, Labour consultant, Management & legal consultant, Chartered Accountants, Barrels-cans-carboys suppliers, wood & furniture supplier, Insurance agents, stone cutters & polishers, Automobile repairers, chilling plant repairers. Architect & Engineers, Ice suppliers, transporters, hotel & restaurants (Rs. 2 crore annual turnover), Safety appliance supplier. Banks, Graphic designers & Copiers, photographers, insulators. Steel suppliers, travel agents, Bus -Taxi-Rickshaws (Daily 1000 taxis are given at rent), Couriers, Security services, Environment consultants, Laboratory chemicals & lab facilities, Weighbridges - all sorts of people are here. They account to about 10,000 people One of the major problem is that of housing. GIDC housing project phase I & II have completed. Development of phase III is under progress while phase IV is yet to be developed. By Oct. 94, it had allotted 1807 flats out of 2005. In housing sector they have developed 97.71 km. of roads.2 Today rent of 2 room kitchen flat is around Hs. 2700 p, month while that of one room kitchen house is Rs. 1500/- P.M.

Exports:

One of the Dyes unit exports 95% of its production. Marvel Glories, manufacturing hand gloves exports 40% production to UK, France, Italy,

Belgium, Netherlands, Arabia. Every month 500-600 tons of Dyes are being exported from Ankleshwar.

Facilities:

Ankleshwar Development Society (A.D.Society) formed by industrialists have established about seven schools like Gattu Vidyalaya (2200 students), Sanskardeep School, Lions School, RUL School, Kosmadi School, Petrofills School & UBMM School. These gives primary & secondary education in Gurjarati, English & Hindi medium to about 5000 students. Investment of Rs. 300 lakh is done by industries on schools. Govt. has started Industrial Training Institute (ITI) with 1500 seats, imparting technical training Chemical plant operation, Laboratory Technician, etc. Hindi medium ITI has been established in adjoining areas of Jhagadia & Valia; The A.D. Society has also set-up a 25 bed hospital called Jayaben Modi Hospital. The hospital has many limitations. A new hospital building at an estimated cost of Rs. 1.5 crore is under construction. It will have ICCU, Burns ward, Trauma ward with host of equipments & Facilities for various tests not available now. Rotary club established public technical library with books worth Rs. 10 lakh. Ankleshwar Environmental Preservation Society is registered under public trust by industries. The Society has started Disaster Management Centre. For Managerial & chem. engineering training, the Industries Association is making its efforts. Apart from Rotary Club, Lions Club, Junior Chamber host of social organizations like Jain Social Group. Mahila Mandal, Shree Niketan, Charotar Samaj, Kutch Kadva Patidar Samaj, Mehsana Mitra Mandal etc. exist.

Development of Adjacent Area:

Panoli, Valia, Zagadia & Vagra are adjacent areas either developed or being developed as industrial areas.

Panoli was notified in 1984 by GIDC and acquired 927 hectare land. It has reserved 600 hectare land for chemical indus, 50 hectare. for engineering, 62 hectare for pesticide, 48 hectare for pharmaceutical units and 105 hectare land for residential area. GIDC has erected 250 industrial sheds of diff sizes and has built up 30 km roads.

Till now phase I, II, & III are developed in which 400 units are hubbing with activities. They have invested Rs. 200 crores and has turnover 10,000 workers. 300 more will join shortly with employment to another 15,000 workers.

Valia, 17 km from Ankleshwar is head quarter of Valia taluka, predominantly tribal area. Six large units with investment of Rs.600 crore employ 3.000 workers. These units include Petrofills Ltd. (Polyester Filament Yarn), Gujarat Godrej Ltd. Gujarat Apar Ltd (Styrene Butadiene Rubber), Zova pharma (Bulk drhgs like trimethoprim), Bhaskar Plastics, Ganesh Sugar Factory etc. Gujarat Guardian has started production of float glass, investing RS. 400 crore. Annexure-I lists major projects under implementation in Bharuch district. Some of them have already started production by now. e.g. Narmada Chematur Petrochemicals Ltd, manufacturing Toluene Di-isocyanate and Aniline, Petrofills Corp. Ltd and Gujarat Narmada Valley Fertilizer Co. Ltd (acetic acid)²

Labour Front:

Published material on Ankleshwar gives little labour information. Who keep these industries running? Undoubtedly, labour.

Estimation of number of workers in Ankleshwar varies. According to a story in B. Abhiyan, there are 40,000 workers staying in Ankleshwar. More 10,000 workers from 30 surrounding villages of Ankleshwar daily

commute from their home. 10,000 white collar workers stay at Bharuch away from pollution while 7000 commute from Baroda and Surat. Industrial sources boast 80 % employees as local. Packaging units employ 200 workers while 10 major engineering units employ. 2000 workers, 3-4000 workers are engaged in Dyes industry. ¹ In all there are 50 to 60,000 workers in Ankleshwar. During our discussion with various people we got information that ESI has 44,000 registered Insured Persons (IP). It is estimated that 20,000 more are either out of ESI purview because of salary more than Rs. 3000 or they are not recognized as worker by the industry. No one knows exactly what the proportion of migrant and local workers is. Also not known is number of women workers. Ankleshwar Ind. Association has boasted generation of 70,000 employments.

L.D. Textile employs 5000 workers, is perhaps largest employing company while Unique Pharmaceutical employs highest no. of women workers. ¹⁸ Are there child labour? Yes. Not known how many. In all the indo units canteens are run by contractors and they employ child labour in the canteen. Textile units are found to be employing adolescent workers in age group of 14-18 are employed on "Kandi" machine.^{2b} A scientific paper on Aniline poisoning reports a hawker collecting industrial leftover - a 12yr. boy - having found unconscious on road with Aniline poisoning. He was carrying empty bags smelling Aniline.¹² Another paper on 'Industrial Burns' notes death of 8 yr. old child with 65% burns subsequently dieing of renal failure.¹⁴ Scores of the contractors give away work at home, where whole family including children work.²³

While no body knows exactly how many workers are employed permanently and how many under contract, we are informed that 60-70 % workers are contract workers. Again "majority" among contract workers are migrant workers from U.P., Bihar, Kerala, Orissa and Maharashtra. One of

the managers informed us that there are only 20-25% migrant workers. Contract labour system is real exploitative and is employed on large scale in Ankleshwar. Contract workers carry out routine process work also.^{19,20} Contractor has to get a license from labour commissioner. The licenses are issued for specific jobs to be carried out in specific industries. Licenses for routine manufacturing or process work are never given. Contract labours are only allowed for loading-unloading or cleaning. But after getting license, contractors misuse it and employ their labour even on process work. The industry employs permanent process workers who are qualified and are highly paid. The same work is taken by unqualified contract labour at very cheap rates. These are untrained workers but employed on hazardous chemical processes many of which are continuous. Since contract workers are changed frequently by contractor from one to another industry, their experience period remain too small to turn them into skilled labour.

Contract workers are said to be paid Rs. 20 to 30²⁰, Rs. 30 to 39¹⁸, Rs. 41²¹. Women workers are paid Rs. 4 to 5 less than their male counterparts. Contract workers are not only employed by Indian employers but by multinationals also, e.g. Searle India employs 125 permanent workers and 150 - 200 contract workers. "Job security, low wages and no protection of Employees State Insurance (ESI –A social security scheme) are some of the problems of contract workers" says Nilesh Parmar. Principal employer deducts 5% amount from the total bill of a contractor on account of ESI but the individual workers do not get ESI identity card and as a result they are deprived of ESI: benefits.¹ Introductory note in a scientific paper is quite significant. While most of the skilled labors come from outside the area, much of the unskilled labourers are employed from villages around Ankleshwar, most of them on contract basis, i.e. as temporary workers without any fixed job descriptions, wages or prospects of significant

development..." Mr. C.G.Pandya is very clear in his observations. Under the caption

"The Exploited lot" he goes on to write :” Thousands of workers in Ankleshwar are presently working under labour contractors and their number is increasing. Since in many cases management finds it convenient to have no liabilities or pay no benefits to such workers and the workers find it necessary to take any job, whether they are being exploited or not, the labour contractors are flourishing.

A short summary of the situation is given below:

- 1 An increasing number of large companies (including multinational companies) are taking labourers from labour contractors.
- 2 The number of labour contractors is increasing with some providing useful employment to workers and other virtually making them slaves.
- 3 One big company employs more than 100 workers through contractors.
- 4 Major aspects of exploitation are:
 - i) No personal protective equipment is provided to contract the workers.
(This was in 87 end. In 95 end, Mr. D.C. Solanki, President, Ankleshwar Emp. Union repeat same complaint while talking to me)
 - ii) Where as regular employs pay Rs. 1.25 towards lunch contractors workers are usually not even food from the canteens or, if given (mostly through the back door), they are charged Rs. 4.
 - iii) Overtime (up to three hours or so) is not paid to the contractor's workers; if at all it is paid, it is paid at normal rate, not twice the rate as stipulated y law.
 - iv) The contractor’s workers are constantly & fully henchmen through some company supervisors.

v) Some contractors do give double over time, given by the company and even PF facilities but others exploit the workers fully, giving no money for overtime, providing no PF or reducing daily wages by taking away even food or tea allowances.

vi) Some contractors change names of the workers every three months. (One of the safety managers, confirmed this while talking to me also²², recent article published in Hindi '*Mukti Sangarsh*', too, reports this practice.)

vii) Gifts and other facilities given to regular employees by the Company are not given to the contractor's workers.

5 It was observed that in one big company, workers only from a particular state or community were being offered employment.

6 Contractors charge companies Rs. 25 per day per worker supplied, but the contractors pay the workers only Rs. 13 to Rs. 17 only. Payments are made by the companies to the contractors. Contractors pay the wages to their workers much late than due date even though they get timely payment from company.⁵

In numbers of units, not a single worker is on roll. e.g. Elam Pharma (Plot No. 3709/4, B/h. New Telephone Exchange). There are 35 workers but none of them have identity card, Privilege leave (PL) card or the attendance register as required by Factories Act. Almost 100 % workers – permanent, casual or contract-in textile units work for 12 hours. Overtime paid to them is single time, instead of double. But, most exploited lot is perhaps security guards. 100 % security workers are contract workers and all of them work for 12 hours. Their pay is fixed for 12 hour work, so problem of overtime does not arise!²⁰ Security guard working since last 17 years earn Rs. 1000-1200 p.m. as salary⁷.

Workers colonies like Shantinagar, Vijaynagar etc. have unhygienic living conditions. Drainage is not properly maintained, leading them to various infectious diseases.¹⁷ Mr. C.G. Pandya observes “Working conditions and living conditions were so poor that they could be considered to be just living - that's all.”

One of the Managers informed me that fresh B.Sc. is paid Rs. 1500 to Rs. 2100 p.m. salary. Labor turn over ratio among workers is low but that among technically qualified is high. He admits that though profitability has gone up, salaries have not risen in that proportion. Contradicting this statement, next moment he tells me that situation is so bad that only 10 % of units make profit while 50 % are either closed down or on verge of it. Since last two years Ankleshwar is peaceful - no strikes, no problems. This is mainly due to rising unemployment on one side and rising prices on the other that workers can not afford stopping work.²¹ In last 20 years Ankleshwar has not witnessed a single case of industrial violence, boasts D.A. Anandpara., former president of Ank. Ind. Association.⁶ Atul Choksi, Managing Director, Asian Paints, adds, “We do not have any labour problems in our company because we believe in ‘Fair and equitable management policy’ We give them what they want, even before they demand. Today our company is considered to be one of the best paying.”¹

Ankleshwar lacks a strong Trade Union, explains Nilesh. This is so because most managements are anti-labour. As soon as organizing activity is started, activists are fired. Managements favor internal i.e. independent employers union, if a t all.

But, some do not even welcome this, if not convenient. Recently, in Lupin unfavorable Employees Union was not recognized. Instead, a ‘works committee’ was formed hastily for wage negotiations and leader of the Emp.

Union was sacked on the ground that he changed his uniform 10 minutes earlier than scheduled time. Employers association is very strong and active. They have good liaison with press and Govt. departments.¹⁸ As, Dahyabhai Solanki puts, only handful of workers are organised. Most workers do not know what union is.²⁰ It is estimated that workers in only 10 % units are organised.²¹ If union activists are not fired, they are softened down by offering various types of contracts within company or lured by promotions.⁷ In Gufic Pharma, they had only 24 permanent workers and 10 women contract workers. When they started organizing themselves, women workers on probation were compelled to give written statement to the effect that they have not joined any union.⁷

In Ankleshwar they have a federation of labor which came into existence in 1992. 24 unions are said to be members of it. The opposition group alleges that today, the leadership is in the hands of pro-management people. The president is a practicing advocate who hold management brief also. They are not democratic. Of the 24 unions half of them are fake.¹⁸ Some independent employees union are genuine and are the only real strength of the federation.¹⁸ Ankleshwar Employees Union, recognised under Bombay Industrial Relations Act (BIR Act- a exploitative law) has kept itself away from the federation.²⁰ In about 7 units workers have been organised by Hind Mazdoor Saha (HMS).²⁴ There are some units where Bhartiya Mazdoor Sangh (Right wing party Bhartiya Janata Party's labor wing; BMS) has its unions. ¹⁸ No other Central Trade Union has its membership here. In numbers of companies, 'works committees' run the union.²⁰

Before Federation of labor came into existence there was a co-ordination committee. The committee organised a May Day Rally successfully in 1986. Last year on 12th Sept.1994, Federation organized a

rally from Asian Paint Square to Ankleshwar Railway station. 5000 workers joined the rally. The rally was organised to draw attention of the authorities for ESI improvement, exploitation of contract workers, problems of environmental pollution, safety at work and problems faced by women workers. Written representation was sent to all concerned Govt. authorities but it was not even acknowledged. In Oct. 94, leaders of the Federation personally met Collector to represent the case. This Federation or any other trade union in Ankleshwar has not organised any training programme for their members.¹⁸ But, HMS members from United Phosphorous, Unique Laboratories, Unique Pharmaceuticals have taken part in various training programmes. HMS organised four training. workshops in Baroda viz. in Dec. 93, May 94, Dec. 94.²⁴ In Blue Star, one of the workers is trained as worker teacher, trained by Central Board for Workers Education. But he has not been able to conduct any unit level classes.¹⁸ After the implementation of new economic policy till today though labour reduction is not observed. New permanent appointments have stopped. Now the Managements have become stronger than earlier. All recent agreement in Ankleshwar are done at management conditions. Now the managements seek co-ordination from unions for training for ISO 9000. But TU activists do not know anything about ISO. They insist to include terms like “multy Skill” or flexibility in job specifications. Pressure on union is increasing. In last three year suspensions-dismissals has gone up. Recently, in Searle India, workers were carrying on peaceful agitation when suddenly Police broke in, went inside the company and pushed out workers who were in company uniform. They were compelled to put signature on ‘conduct bond’. 25 union activists are dismissed there.

Health & Safety

Gandhi Labour Institute, Ahmedabad took up study of status of Chemical units in Ankleshwar. Mr. C.G. Pandya carried out this study on behalf of the Institute in 1987.

A quotation from his book:“.....Ethambutol is being manufactured in Ankleshwar. As can be seen in Material Safety Data Sheet. Ethambutol has an oral TD Lo (Lowest published Toxic: Dose) of only 600 mg/kg of body weight, for humans at which dose the central nervous system gets affected. With a dose of 1200 mg/kg, systemic effects also occur. It was observed that one worker was thrown out of his job because of extensive skin disease on hands: this man was earlier working on Ethambutol dryers where he probably picked up the disease. The place where this dryer is being worked on does not have any specific ventilation system and absorption of powdered Ethambutol is bound to affect the system. It seems that adequate ventilation system is neither being specified in the design being installed in a majority of chemical units” (p.41)⁵

Extensive survey was carried out by the team to know the health & safety status in Ankleshwar. Based on general environmental conditions within the plant, the team found only 1% of units surveyed as “very good”. 10% units stood ‘good’, 28% units in ‘Fair’ category, 49% in ‘poor’ category and 12% units as very poor (p. 14)⁵

The team found multinational units to be in satisfactory range while small-scale units in bad shape as far as safety standards are concerned.⁵

Storage of chemicals is an important aspect for any chemical unit. The study found corroded tanks in 55% of units. Only 10% units surveyed were found to be satisfactory. i.e. about 20 units) 71% of units do not take enough care of pipes and valves. Safety manual was not prepared by 87% units. While 86% units did not have safety committee as required by Factories act. 63% units

did not have escape routes for emergencies. 925 chemicals were listed which are being handled in Ankleshwar. Out of these 575 chemicals were identified but 350 chemical could not be identified. Out of 575, 51 chemicals are banned; in developed countries, Out of 575, 187 were extremely hazardous, 324 were moderately hazardous while 59 were less hazardous. 13% units use asbestos as insulating material. He could not get data of accidents. Only 3 fatal accidents were registered! The report speaks for itself. Report is now about 8 year old. No. of units has phenomenally increased in these 8 years increasing the risk to the workers in particular and community in general.

Accidents:

According to the data made available, three persons have died in accidents in chemical units at Ankleshwar in the last three years, (though in my opinion this figure would be much higher) A total 6% of units have had accident~ of some type. Most of the accidents were due to burns or acid injuries, explosions or acute inhalation of toxic gases. (P.53)...smaller/minor accidents in most of the units surveyed are neglected and no records are presumably being maintained anywhere especially in the small - scale sector. Systematic investigation and analysis of accidents cannot be done if there is no information available. In serious/fatal accident cases only some records are being kept. There is plenty of hush--hush and secrecy being maintained during and after accident. To quote my own case, I was not allowed to even go into a pesticide plant where there was a fatal accident. For days together we were not permitted to even enter the plant, let apart studying the case.” (P.13I) In introductory chapter (P.6) he lists constraints observed during study. Item No.6 reads...” Accident records were not supplied in most cases.”

To get first hand information of accidents in Ankleshwar I personally visited office of Sr. Inspector or Factories in Bharuch on 13th Dec. I met Sr.

Inspector of Factories Mr. Gosai, I explained him purpose of my visit. He bluntly denied to give any information saying it is secret.

VSS Mandal, Baroda collects press clippings of accidents and publish it at year end. Accordingly, in 1993 reports 3 accidents and one incident.²⁵

Four workers were injured while working inside a reactor at Lupin Laboratories. While working something struck with head and worker died of injuries at Suyog Co. In third case, while erecting boiler chimney, crane wire gave way and a worker died (name of the company not mentioned). Out of total 68 fatal cases only 2 fatal cases in Ankleshwar, though is not a high figure confirms industries link with press on one hand and the information gap created by newspaper companies. Now, newspapers (*Gujarat Samachar* in this case) are published simultaneously from Ahmedabad, Baroda, Surat, Rajkot and Bombay. So, the reader in Baroda is deprived of 'local' news of Surat area or Ahmedabad area. More over, the news of industrial accidents are not given due weightage by press circles. Low incidence of accidents in Ankleshwar reported in *Gujarat Samachar* - Baroda Edition may be because of this reason.²⁵

Vyavsayik Swasthya Suraksha Mandal (VSSM; Workers pressure group for Health & safety) publications in May 95, give information about accidents/incidents in year 1994. In Rallies India 2 injured, 1 died in March 94 in explosion. In Ankleshwar Paper & Board Mill 3 injured, 1 died in boiler explosion. One worker died of burns at Parina Laboratories-a pharmaceutical company in June. Dinitro-O-Toluidine was being dried in dryer when it took fire. One more dies of burns in a company at Ankleshwar (name not mentioned) in September.

In the same month 2 workers lost life in fire. One worker died and one injured following exposure to toxic gas at Sunrise Chemical in November.²⁶ In all, 7 deaths reported - double than earlier year. Is it because more

accidents have taken place or is it because quality of reporting is improved? Ankleshwar GIDC was notified by Government to be covered under Employees State Insurance Act from 16-5-93. Under the provisions of this Act, the industry has to contribute 4.75% of Salary-wages (for employees drawing salary up to Rs. 3000/- p.m) and employees have to contribute 1.5% of the salary drawn. One of the benefits offered by the ESI is compensation to the workers for injuries, deaths or diseases occurred in course and out of employment. Can increased reportage be linked with coverage under ESI? Before ESI, workers had right to claim compensation under Workmen Compensation Act. But, when workers are not organised, very few would come forward for claiming compensation. Juhi Saklani, in her recent report observes that dead body of a worker died in industrial accident was found in *nulla* (culvert) near factory.

She narrates one more incident. “In M..J. pharmaceutical it took big fire with explosion in which 2-3 workers remained inside. But, not a single death was reported. No body, till today knows about those 2 – 3 workers. The accident took place in year 1992.’

A Safety Health & Environment Association is formed by &. initiative of Ind. Association and Factories Inspectorate, since 1993. Formal inauguration was done in Feb. 95. The Association publishes *Audyogik Suraksha Samachar* (Industrial Safety Newsletter) in Gujarati at irregular intervals. They have published 8 issues from Jan 93 to Nov. 95. We have with us only 4 issues of this bulletin. April 95 issue notes: To draw attention toward rising number of fatal accidents in pesticide industry, half day seminar was organised for occupiers/manages jointly by Factories Inspectorate and SHE Association.

The newsletter publishes reports about accidents without either naming the industry or victim or even date. Though location of accidents is

no where mentioned, we tend to believe it being happened in Ankleshwar industrial Area since the Association is established to work in Bharuch district. We have with us April, July and November issues (No 6,7,8). It describes in all 16 fatal accidents. These accident have taken place in Glass (1), Textile (3) Paper (1) Engineering (1), Plastic (1), Pesticide (3), Chemical (4), Two fatal accidents in two different industries are due to fall from height. The then minister for Law, Gujarat State, announced at a public meeting at Ankleshwar on 19/11/94 that 258 workers have died in fatal accidents taken place in Ankleshwar Ind. area since its inception.

Inside pesticides plants:

A special issue of '*Kamdar, Swasthya, Suraksh*' (May 91) on accidents in pesticides units in Ankleshwar²⁷, gives details of inside situation "When I was invited for interview, they asked me several questions to know whether I knew anything about pesticides. I did not know anything. Neither did they part any information. After interviewing me thrice, I was sent for medical check up. I was not given report but was told that I am fit for the job. I was absorbed as Supervisor at a salary of Rs. 700/- p.m. The company manufactured formulations of Fenvilarate, Phosphamidon, Endosulfan, Mencozeb, Monocrotophos, Phorate, Cypermethrin, Methyl Parathion etc. Factory worked in all three shifts. All of the laborers were contract workers. Chemicals were in liquid & solid forms. Powder was filled in can manually. Big liquid packing (5 kg & 10 kg) also were filled manually. Small liquid packing were filled by machine. Glass bottles filled by machine used to overflow, fall aside and break, exposing machine operators. On an average 3-bottles per shift daily will have this fate. While filling 500 gm cans the can may burst while fitting the lid and worker will be exposed to liquid splash. While filling powder bags workers are exposed to the powder. The

disposable plastic hand-gloves were given which would get torn in just two-three hours. Then PVC hand-gloves are given which are not convenient for powder filling and so worker would not use it. Even disposable gloves are not given to all the workers but supervisor is instructed by shift head to give gloves to those workers only who are 'likely to be affected'. They used to keep only 2-3 pairs of PVC gloves, so even that can't be given to all the workers. All the workers were contract workers. Workers were given ordinary piece of cloth as nose/face mask. While filling the powder, work environment used to be every dusty. So the mask would get clogged frequently, which they had to clean it. Because of dusting, itching of nose would continue, to be attended by bare hands. Now, the hands were always covered by powder and with such hands worker would itch the nose. Thus hands and nose area can be seen covered by powder. Workers used to complain of headache & vertigo. Some would vomit. Daily, on an average, one or two such cases were registered. Serious exposure needing hospitalization would happen once in a month or so. Phorate vapors would cause headache & sleepiness. Within 15 minutes of starting the work that complains would start. Fenvelerate vapors would cause sensation of burning on cheeks and near eyes. Some people would get temperature when they go back home. If a worker shows any symptoms of exposure he would be advised to take bath (with cold water) and some pills would be given. He would be asked to rest in rest room. The rest-room did not have cot & mattresses but had ordinary wooden benches! The benches were not wide enough and so lying down were not at all convenient. No fans, No facility for drinking water in this rest room. We, supervisors were given strict instruction not to write anything in the records about incidents of toxic effects. When I joined, my weight was 50 kg., when I left after 5 months it

had reduced to 41 kg. I had to leave because of continuous ill health. I used to have fever for 20 days in a month.

“If worker is found to be affected, he is given break for which he is not entitled any wages. Most contract workers are always scared of getting such breaks. So they tend not to tell anything about their health problems. A worker in the night shift was feeling unwell. He went to rest room without informing anyone. After an hour Supervisor caught hold, so he restarted work. At 6 in the morning he vomited. He was taken to local hospital and from there to a hospital in Surat, where he died on 7th June 1990. Another worker joined the company. After few hours of work he complained of stomach ache. He was given rest and medicine. For next two days he did not appear. Third day he came with complain of vertigo. He was hospitalised at Surat where he died (May 90). A worker named C.M. Patel, 20, was on Phosplamidon packing machine where 18 bottles are filled in a minute. At 7.30 in the evening somehow liquid splashed on his clothes. He swallowed little through mouth also. Supervisor abused him and asked to change and leave. I asked that worker to go home and come back after changing. He was frightened. Within an hour he started vomiting at home. His father came at about 11 in the night but company closed, so there was no one but *chowkidar* (watchman). Next day morning his father came and informed company that his son has died. Day 25, May 89. Company officials went and gave out some money for last rites. Shankar Kalu Baria was in 2nd shift. He was affected at about 10 o'clock. No body bothered till shift end i.e. 11.30. He was found dead at that time. He joined company on 26 June and died on 30th June 89.²⁷ These cases are 5-6 year old.

Chief Medical Officer of J. Modi Hospital, run by Ankleshwar Ind. Development. Society writes in article published in June 95 & titled “Clinical presentation. Treatment and utility of blood cholinesterase Activity

Estimation in 33 cases of industrial organophosphorus poisoning:” ... “It is not uncommon to find such labours being asked to handle dangerous chemicals without adequate protection or even information about the potential hazards of the work they are assigned. It has been the recurrent experience of the hospital that most of the cases of poisoning from such chemicals occur among contract laborers. There have been instances when epidemics of such poisonings have broken out in specific industrial units with large number of cases of toxicity reporting to the hospital over relatively short period of time. It is also not uncommon for industrial units to disown or other wise neglect victims of such poisoning, so that many such contract labours admitted with signs of toxicity absconded because they could not afford investigation and treatment. One class of chemical that has particularly been prominent in causing such outbreaks has been the organophosphorous class of compounds. There are about 18 units in the industrial estate of Ankleshwar and neighbouring Panoli that handle these chemicals... this latter process (*i.e. formulation-Ed.*) involves dissolving the parent compound with volatile solvents and it is this process that seems to most commonly cause acute accidental toxicity through inhalation and direct contact of the aerosol with the eyes, skin and mucous membranes... 33 industrial workers were brought to our hospital between June 1994 and October 1994 with history and clinical features suggestive of organophosphorous poisoning... All 33 were males in age range of 17 to 46 years... They were employees of six units in Ankleshwar and Panoli Ind. Estates. All were contract laborers from Gujarat, Madhya Pradesh, Uttar Pradesh, Bihar and Orissa, mostly from poor classes. They had very little awareness about the potential for the toxicity of the chemicals that they handled... Of the 33 patients, 2 were serious, 2 absconded and 4 were discharged against medical advice before they could fully recover.... It is

very significant that a large number of patients were apparently neglected by their parent industries, especially when they seemed to be on the way to recover. This was the main reason for some of the patients going away without completing treatment. It is also worth noting that none of the patients has taken any specific precautions to avoid the toxicity to which they fell victim. None of them had a clear idea about the potential exposure. This problem was much aggravated by the fact that most of the laborers involved were short term contract laborers... it would be most correct to provide such laborers with enough information about the chemicals they handle and the toxicity that can be expected.¹³

Another paper published by the same author, in March 93 gives account of 34 cases of aniline poisoning during 12 months period. Quotes: Aniline is an aromatic amine, exposure to which causes methemoglobinemia. Methemoglobin holds Oxygen much more firmly than hemoglobin, thus prevent the natural function of hemoglobin i.e. transport of oxygen. Hence there is anoxia and later cyanosis and workers affected in this way are referred as 'blued up'. Such convenient terms as anilism or anilism are sometimes used to cover all cases in which methemoglobinemia occurs. 34 cases exposed to aniline dyes were managed at J. M. Hospital... A 12 years old boy, a hawker (collection industrial left over) was found unconscious on the road. On admission there was shallow breathing, tachycardia, unconsciousness and cyanosis. The empty bags carried by him on his back, smelled of aniline. He recovered well with treatment.¹²

Yet another unpublished work by the author, Dr. H. I. Shah gives us this information: During the year 89-90, we have come across approximately 65 cases of acute chemical exposure. The chemicals to which patients were exposed to were: Chlorine, Ammonia, Nitrogen, Ethylene Dichloride, Acetic Acid, Formaldehyde, Dimethyl Sulfate, Maleic Anhydride. Phthalic

Anhydride, Aniline, Nitrobenzene, Chloroform, Hydrochloric Acid, Toluene. NBK, Organophosphorous, Methyl Mercaptan and TCESU. Out of 65, six had died with in 48 to 72 hours. Most of organs affected are eyes, face & lungs... In case of exposure to DMS, involvement of respiratory tract (Pulmonary Edema) occurs even after 24 hours. So, such cases should be kept for observation for 24 hours.

Safety Awards:

Every year Gujarat Safety Council (GSC) gives out safety awards. It does not carry much credibility among workers. Even though, if it is considered as a standard, it will be interesting to see how many awards have been won by units in Ankleshwar.

Year	total No. of Awards given by GSC	No. of Awards won by industries in Ankleshwar
1987	22	1
1988	23	3
1989	27	2
1990	24	-
1991	38	1

Government Action:

After all these fatal injuries, what punishment do they get? In 1987, Factories Act was amended. Punitive amount was raised considerably. As per Sec. 92 occupier can be fined up to Rs. 1 lakh or 2 years of imprisonment. If the provision of chapter 4 or its rules or rules made under sec. 87 are breached and as a result if fatal accident take place or Serious

bodily injury take place, then minimum fine is Rs. 25,000/-. There were fatal accidents in Searle India, King Ind., Lupin Laboratories and Rallies Pharmaceuticals (Agro Div.) and were prosecuted by Factory Inspectorate. Judicial First class magistrate fined Rs. 5,500/- to first two companies and Rs. 3,000/- to remaining two companies!²⁶

Occupational Diseases:

The effects of air pollution particularly on workers at present exposure levels include respiratory and irritation troubles in 77% to 82% of factories respectively. Adverse effects on skin and eyes were noted in 86% to 87% of the units respectively. There being no continuous medical check up of workers in a majority of units, it is not possible to give any accurate figures about the health effects. Because of high rate of unemployment in the country, workers do not want to be medically checked because in case some abnormality is noticed they are likely to lose their jobs. Because of this understandable fear, most of the workers, particularly casual or contract workers do not inform even their friends or family about their sickness... It was noticed that in some cases, names are changed (on paper) almost quarterly in the records for workers, even though the persons are same. Under such circumstances one cannot have either correct medical history nor can they be treated properly. This is a pretty serious matter worth looking into.⁵

All of the 18 workers interviewed were from private companies. Four of them were company workers while 14 were contractor's workers... Large no. of them were working for Rs. 17 per day. Almost all the workers interviewed were local workers... Most of the workers interviewed were young and therefore could not have many medical problems. It was however noticed that two of the workers had dermatitis. One of them had an acute case and was thrown out of the job even by the Contractor, obviously

without any compensation or treatment. Another person had been suffering from ulcer and had to be treated by a private doctor at enormous expense because there was no medical insurance or group insurance for him in his company. Two other workers had been suffering from comparatively minor diseases. They were also paying for their medical expenses, because labour contractors can provide only casual employment, not other facilities.⁵

The adverse effects of the 575 identified chemicals on different organs of the body are summarized below:

Eyes	-	307 chemicals (53.39%)
Skin	-	298 chemicals (51.82%)
Throat	-	94 chemicals (16.34%)
Nose	-	90 chemicals (15.65%)
Mucous Membrane	-	77 chemicals (13.39%)
Lungs	-	52 chemicals (9.04%)
Kidney	-	18 chemicals
Liver	-	18 chemicals
Respiratory tract	-	10 chemicals
Stomach	-	2 chemicals
Bladder	-	1 chemical
Heart	-	1 chemical
Teeth	-	1 chemical

Mutagenic Data for 575 chemicals covered in the survey are

Carcinogens	-	81 chemicals (14.08%)
Neoplastigens	-	35 chemicals (6.08%)
Teratogens	-	56 chemicals (9.73%)
Tumorigenic	-	60 chemicals (10.43%)

While giving interview for a magazine, Dr. Anil Patel of Ankleshwar said: I have examined workers exposed to carbon dust for longer period. They were suffering from pneumoconiosis. Some of the workers engaged in Sodium Dichromate manufacturing had come to me for treatment. They had chrome-ulcer. 200 workers got affected, so ultimately the factory had to be closed down. Workers in pesticides plant may suffer from respiratory disease. One of the companies here (i.e. in Ankaleshwar) spent Rs. 70,000 for treatment of two workers. Workers in organic chemicals like hydrocarbon pose hazard of Blood cancer. One of the Doctors in Ahmedabad says that after industrial development in Ankleshwar, number of cases of Blood cancer has raised tremendously.⁶

One of the Safety managers in Ankleshwar informed me that medical check up carried out by employees is just clinical checkup. Biological monitoring is not done. In Ankleshwar, workplace environment in most units is highly polluted but hardly anywhere it is regularly monitored. Though serious illness is not observed among workers but one can find cases of skin disease. Shift workers complain of acidity and gastric trouble. Quality of the safety equipments is not satisfactory. Since there is no legal compulsion for equipments conforming Indian Standards, employers tend to buy cheap equipments.²²

I met Dr. H.I. Shah, CMO, Jayaben Modi Hospital. About 4 years ago he came across a worker working with M/s. Replicate Carbide, suffering from pneumoconiosis. Hospital report to this effect was not accepted by the company. They argued that they do not have any such process. After that, Factory Inspector was informed. What happened since then, he does not know. He is of the opinion that low incidence rate of occupational diseases is due to a strong group of private medical practitioners, who cover up the information. There are about 10 private hospitals and 100-150 private

medical consultants. He was hopeful that after commencement of new hospital, they will have much more facilities and equipments for diagnosis and research on occupational diseases. It is significant to note that in last. 3 years (after ESI Act implemented) not a single case of Occ. diseases due to chronic exposure is found. This is may be due to private medical consultants employed by the company. They manage the cases on their level. Since J.M. Hospital policy is not to hide anything, employers are scared of it.

Latest information given by him is interesting. In a period of two years i.e. Jan'93 to Dec' 94. 1079 cases of industrial accidents were treated. Following is the classification:

Burns	:093
Trauma	:775
Chem..	:211
exposure	_____
	-
	1079

	-

These are further classified as under:

Burns:	27	Electrical
	35	Chemical
	31	Other

	93	

Trauma:	Upper	17.39%
	Limb :	(135)
	Lower	39.00%

Limb:	(302)
Head	10.14%
:	(79)
Hand	30.00%
:	(232)
Other	3.47% (27)
:	

Gas Exposure:

Organophosphorus	85
:	
Aniline	47
:	
Chlorine	26
:	
Ammonia	22
:	
HCL	: 05
DMS	: 05
SO ₂	: 05
Toluene	: 04
Other	: 12

211

Mr. B.D. Navale, President, Glaxo Employees Union informs me that after a fatal accident in 1990 due to Mercaptan gas, company became strict about safety. Ranitidine is one of the Glaxo products and is skin sensitizer. It caused dermatitis to a permanent woman worker. She is technically qualified

but had to be shifted to clerical job. Now she is free of dermatitis but is worried about career opportunities and does not get job satisfaction. Another woman worker also had undergone patch test for her complaints. No other case of occupational disease is known to him. Same is the case with Nilesh Parmar, an active trade unionist since last more than 10 years. He does not know a single worker suffering from any occupational disease.¹⁸ There are about 150 qualified safety officers in the estate - but it seems that they do not enjoy good control & powers to be effective. Trade Unions do not lodge any complaints about Health & safety with factory inspectors. Sometime they lodge oral complaints casually. Written complaints are lodged rarely. Training in OHS is lacking badly. Even if some workers want to get trained, there is no facility for it. Moreover he cannot avail leave with pay for training.²² Inspection by Factories Inspector is weak, laments Nilesh, particularly small-scale units are badly managed. But Navale feels differently. He says, Searle India, Lupin, Walkhardt, UPL, Unique Pharmaceuticals; Sri sulfuric, Khatan dyes, Khatan Agro - are large companies but do not observe proper safety.¹⁹

ESI

Problems of ESI need special attention. I visited the ESI dispensary situated in West Ankleshwar. The industrial area, GIDC is on eastern side of railway track while old Ankleshwar town is on Western side. The dispensary was over crowded. A quarrel was going on between ESI staff and patient about case paper. The patient did not remember date of her last visit to ESI which is necessary for ESI staff to search out the case paper. When I peeped inside, I could see two doctors in poorly lighted and ventilated room, literally *gheraoed* (encircled) by number of patients all of whom were in haste to be examined first. I saw a young person coming out successfully after great difficulties. I asked him if this was a daily scene, Abusing ESI with anger he

advised me to go to Jayaben Hospital in the evening if I need treatment.(He thought I am a patient). Jayaben Modi is an emergency centre for ESI. After the dispensary is closed down in the evening if IP has any problem, one can avail services from this hospital). It will be easier, he informed me. Both the doctors are outsiders. One is commuting from Baroda while another is commuting from Surat. The staff is insufficient. Some one in D.C. Solanki's office tells me that ESI has 41.000 IPs in Ankleshwar! Nilesh rightly tells: there are no doctors, no facilities.¹⁸ An Alternative scheme, better than ESI was presented to the Government by the Industrial Association, when they decided to notify this area under ESI Act. But, since some of the workers protested, it was not insisted for. J. Modi Hospital is recognized emergency and referral centre for ESI. But, every month they lose Rs. 10,000/- for giving services to IPs. e.g. whenever X-rays are needed, ESI does not pay anything to the Hospital. Instead, X-ray plates are replaced. How about the expenses for chemicals used for developing, labour used and maintenance? Hospital has to bear these expenses purely on political grounds. The problem is not only with quality of drugs given by EST but the procedure. When workers are referred to us we can examine and prescribe the medicine. Even if we have the same medicine in this hospital, we can not give. Worker has to go back to the dispensary and get it. There are numerous stories going around long queues at ESI dispensary. It is heard that a worker had to wait for two & half hours for his turn to be examined by doctor. He died before he could be seen. ESI takes away something around Rs. 3 to 10 crores per year from Ankleshwar but hardly spend even 1% of it is used here.²² Federation of Labour, in a letter to ESI Director put forward all these demands. As per the norms, for every 10,000 IPs there should be one 20 bed hospital. Here, there are 40.000 IPs which require 80-100 bed hospital. Instead, the services are rendered by J.M. Hospital - a 25, bed hospital. On 6th Sept. 94, a

worker went to the hospital for treatment. He was not admitted in this hospital, giving written reason that bed is not available. Road to Bharuch was closed due to rains. Ultimately the worker died. Another worker, Mr. Lokhandia died when he was in queue at Dispensary. Doctors do not come in time etc. ESI is just looting workers everywhere as at Ankleshwar. Agitation only is hope.

Environment

Business supplement of Times of India boasts – “Ankleshwar- The gem of industrial estates.” (22/1/85)³² . News item in the same newspaper next day i.e 23/4/95 breaks news that a recent list of the 20 most polluted cities and towns released by the Union environment ministry features Ankleshwar and Vapi from Gujarat in the list.¹⁶ In the existing study (i.e. GLI study) it can be seen that more than 68% of units suffer from pollution. Pollution due to water contamination and odor is present in more than 80% of units and immediate corrective measures are needed to ensure clean air and water in the area. Many of the units have installed effluent treatment plants. Quite a few were however, found not working at all. Some were, not properly maintained. In some cases it was observed that effluents were seldom discharged during the day time but were held in the holding tanks or equalisation tanks and discharged during the night.

Solid wastes were being dumped at several places. Hazardous wastes from insecticide and pesticide units are being incinerated. The successful working of these incinerators can be ascertained by monitoring the discharged stack gases. Such monitoring, it was observed, was not being carried out on our inquiry, the unit staff in some cases could not confirm whether they had any temperature monitoring equipment for different wastes. On enquiring whether wastes were made fully combustible or were

avoided by a solvent, we were not given any satisfactory answers. If the waste is not incinerated completely, it retains its toxic properties and remains an environmental hazard- (empty drums of sodium cyanide with scrap trader) The drums were 600 in numbers and contained more than 100 kg of Sod. Cyanide lumps sticking to the inside. They were being hashed with bare hands by workers with water being pumped out of a tube well. The washing was being done right under the hand pump from which drinking water was being fetched. Many other drums containing highly toxic chemicals were seen in that shop.

It is observed that the name of unit indicating it to be an engineering unit was in fact, carrying out manufacture of toxic chemicals without getting permission from Gujarat Pollution Control Board. For boilers, some units use wood while some use even rubber . In numbers of units, technically qualified person is not available in shift. While in ceramic industry smoke was coming out of furnace but they did not have chimney. Even officials from Guj. Pollution board were denied entry in a unit during night hours.¹

Of the entire consumption of 50,000 Kilo-liters of water per day by industries, nearly 36,000 KL is generated as waste water on daily basis. In absence of well laid-out under ground drainage system, the effluent is collected mainly through natural surface drains, pumped into the Amala canal and finally discharged into the Arabian sea. A survey conducted by Central Pollution Control Board (CPCB) indicated that almost all the 'problematic' industries had violated standards laid down by the environment ministry. No progress had been made towards construction of common effluent treatment plants which were to treat 25,000 KL of waste water per day. The survey revealed that hazardous wastes were being disposed off indiscriminately on land, mostly in low-lying area. (Times of India 5/12/94) A team of top officials of CPCB recently visited Ankleshwar.

The team observed that nine pumping stations in G I DC are not working resulting effluent being drained in open drains. (Financial Express: 16 / 2 / 95)

Residents of Ankleshwar town had to go without drinking water for three days in July this year as the local municipality had cut-off water supply as effluents had seeped into the water source due to non-completion of underground drainage system for the GIDC Ind. estate (10/8/95. News paper not identifiable)

A red dog laps up purple water from an open gutter, while a yellow low ambles past. ⁹ We saw Technicolor dogs and human beings and buffaloes sitting in Green effluent pond. ¹

70,000 people lying in a 10 km radius of Ankleshwar have been affected. Acidic effluents have altered the chemical structure of the soil of 8.10 ha of his (Jayesh Patel- a sugarcane farmer) land, ruining fertility. District Agriculture Office has issued a certificate to this effect on 28/7/95. "The discharge has polluted water sources and irrigation canals of the above villages (Samor, Amrutpura, Gadkhol, Chapra, Diva, Pungam etc.). affecting fields, wells, human beings, and animals.' A CPCB survey found that wells along the earthen drains carrying effluents have also been polluted. Indeed tube-wells and hand pumps in the area produce red water. Liquid wastes are discharged into open gutters and ultimately wind their way to the Narmada estuary some 25 k. away. ⁹

Trade Unionist Mr. D.C. Solanki informs us that 4 years ago 17 buffaloes of village Bakrol died after consuming effluent from Lupins Agro, Panoli. Just recently, about a month ago, seven buffaloes heard to be died at Valia after consuming effluent from Zora Pharmaceutical. There is a 'chemical pond' beside hotel Tapi, Panoli where one can pour just any quality of liquid waste

by paying Rs. 500/- at a time. Another businessman in Panoli accepts liquid effluent. The charge is Rs. 500/- per tanker. The tanker can be emptied in his reactor at his unit in Panoli, the effluent come from as far as Ahmedabad to him, it is said.²² Dr. Shah inform us that cases of upper respiratory tract infection are reported probably due to environmental pollution.¹⁷ Journalists have observed patients suffering from respiratory tract and skin, in hospitals in Ankleshwar.

Doctors from Bombay visited Ankleshwar some time (for some medical camp) upon examination they found 6 cancer patients out of total 100 examined. Diseases of skin and bones are on increase, says Hiralal Modi, a local Congress politician.'

President of Glaxo Emp. Union complained that workers in 2nd and 3rd shift in Glaxo always complain of cocktail of gases from neighbouring companies.¹⁹ Rotary club, Ankleshwar has set up Pollution Control Cell which publishes Rotary Greeneshwar Times. It has installed a monitoring station at UPL colony since 28/3/92. The first results showed SO_x & NO_x well within limits but SPM (suspended particulate matter) to be 277 ug/m³ (TLV 200 ug/m³). The reasons given for higher SPM are:

- In various proportions the gaseous chemicals like Chlorine. Ammonia, Sulphur Dioxide, Nitrogen Oxide, Mercaptan, Hydrocarbons are discharged by most of all factories.
- Around 15 factories burn more than total 100 tones of Lignite coal and most of them do not have any system to control particulate matter.
- The scrape items consisting Tyres, tubes and plastic items are burnt. Waste oil is burnt in place of coal, which spreads horrible smell and form dirty black paste.³³

Suspended particulate matter during May, June & July (for which data is published) remain much higher than TLV (threshold limit value). Highest

was 400 $\mu\text{g}/\text{m}^3$ in 3rd week of May (perhaps hottest days in Gujarat) while lowest 150 $\mu\text{g}/\text{m}^3$ in 3rd week of July. Average of 3 months remained 270 $\mu\text{g}/\text{m}^3$.³⁴ Ahmed Patel, Member of Parliament has played vital role in developing infrastructure facilities at Ankleshwar. The same person announces to go on fast in protest of continued pollution. He went on a one day fast on 19th Nov. 94. He said that human-life, cattle and agriculture has been badly affected due to continued pollution. 19th November was selected, being birth-day of Mrs. Indira Gandhi, who always thought of environment, he said. He appealed industrialists to save environment. He criticized GIDC for lack of proper infrastructural facilities. He informed the audience that Ankleshwar needs five common effluent treatment plants for which Rs. 15 crore will be needed. There is no planning with anyone about this expenditure. Now before inviting Industrialists for investment in this area, we should think of environment. Mr. Navin Shastri, the minister of law said that problem is due to sweet relationship between industrialists and officials of GPCB, 258 people have died till now due to accidents taking place in Ankleshwar, he added.³⁵ Farmers have filed a writ petition in Gujarat High Court against pollution units. President of Ankleshwar Ind. Association says, "On its own initiative, the AIA in 1993 decided to setup a Common Efficient Treatment Plant (CETP) at a cost of Rs. 2.5 crores." This plant will handle 10 lakh liters a day from 80-100 units-primarily small scale ones and become operational from March 1996. The industries have setup a private company, Envirotechnology limited, to manage the CEPT on a commercial basis.⁹ Citizens in Ankleshwar are not silent. They have formed "*Pradushan Virodhi Samiti*." (Anti-pollution Committee). They have been pleading polluting industries to stop pollution. I have with me their letter dated 26.6.93 addressed to Gen. Manager, United Phosphorous Ltd. one of the

worst polluters in the area. It seems now that, they are tired. They lack confidence and technical guidance to keep up the struggle.

Suggestion

Various suggestions came forward during discussions with different people. It would be helpful to list out all of them.

Nilesh Parmar, Trade Unionist:

- Information to be given to leaders and workers about hazards
- Training for safety, leadership development. Business affairs and negotiation skill is required. I

B.D. Navale, Trade Unionist :

Union committees need to be trained first rather than workers.

D.C. Solanki, Trade Unionist:

- Survey of workers in Ankleshwar should be carried out to know no. of workers. no. of women workers, no. of child labour, state of origin, Right now we lack basic authentic data.
- Awareness program should be launched. Conference, Training etc. can be organised. Managements should be taken into confidence. Their co-operation can be sought in of worker and monetary part.

1. Dr. H.I. Shah. CMO, J.M. Hospital:

- Pre -employment and periodical medical check up of contract workers needs to be done.
- Common Occupational Health centre should be set up which is independent of industry, Govt. and trade union.
- Epidemiological survey need to be done for
 - 1). Bladder cancer due to dyes.
 - 2). Effects of aniline group chemicals on blood.
 - 3) . Study of specific chemicals like solvents.

4)Study of health of people staying in villages on Rajpipla road like Jitali, Dadhan, Sarangpore as they are exposed to several pollution most part of the year.

5) Migrants from Panchmahals need special attention. They are engaged in road & building construction and production of agrochemicals, as well. In agrochemicals they work on batch making during the months of February to September which is peak season.

Safety Personnel :

- ❖ A good institute imparting training on OHS is needed. It should give certificate. Admission should be open even for illiterate. Institute should develop need based training packages. Programs must be well organised. It should be managed by good professionals like Baroda Management Association.
- ❖ Priority need to be given to the workers of small-scale in pharmaceutical bulk drug and dyes industries.
- ❖ Good safety material training should be translated in Gujarati for training.
- ❖ A survey is required for listing all the chemicals used in Ankleshwar.

RECOMMENDATIONS:

1. Trade Union activists in Ankleshwar, interested in issues related to OHS should be identified and efforts be put up in a direction to set up a nucleus for a local group to organise activities.
2. To continue the dialogue with local activists and other interested professionals in this direction.

3. To start with initially few exhibitions need to be organised at different places in the estate which may attract wider cross section of people to establish contacts and identify interested people.
4. Issues related with ESI and workers of pesticide need to be first attended. Possibility of people getting organised around issues of ESI is strong.
5. Introductory material on ESI in Gujarati should be printed and distributed in large quantity to generate awareness about various benefits available under the scheme.
6. Good material on problems, methods of protections and legal provisions available to workers in pesticides should be prepared in Gujarati & Hindi.
7. In process, Ankleshwar Emp. Association has offered to organise a one day training programme for their workers. To help them organising this programme in designing and technical input. They have accepted to arrange for the required finance and local administration.
8. 3 workshops, particularly for pesticide workers can be planned for next year.
9. An advanced course on OHS should be organised particularly for TU activists, who can then take up the work independently.
10. One or two programs need to be organised giving basic TU education, negotiation skills and laws.

Issues of environment (air) pollution are very strong and people can be organised on this issue. Some are already active. Their movements can be strengthened by media support, health surveys technical/legal guidance and co-ordination.

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