

An Overview of the impacts of the mica mining industry in Sydapuram Mandal (Andhra Pradesh)

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Brief outline of mica mining

India produces about 62% of the world's mica. Mica commonly occurs as flakes, scales or shreds. Sheet muscovite (white) mica is used in electronic insulators; ground mica in paints, as joint cement, as a dusting agent, in well-drilling muds; and in plastics, roofing, rubber and welding rods. It is siliceous in nature. In India it is mainly found in Andhra Pradesh at Atmakur, Ravuru, Gudur of Nellore district, Tiruvuru (Krishna district), Madhira (Khammam dist), Ankannagudem (West Godavari).

Over the past few decades the demand for mica has seen a drastic decline. This is mainly due to the many materials, which are used as substitutesⁱ can be substituted for mica in its numerous electronic and electrical uses. In this context there is no major growth expected for the mica market. This has also led to decline in the mica mining itself. This is evident in the closing down of most of the mines in Gudur.

Overview of the mining scenario in Sydapuram Mandal of Gudur,

The visit to Gudur was an effort to understand the impacts mica mining has on the local environment and populace, in particular the women in the community and the women mineworkers. The visit revealed that mica mines have become an intrinsic part of the local people lives and livelihood as they have been around since many decades. (something on the history of mica mines) The leases given vary from 75 years to 99-year leases, many of them expired but their presence is depicted by the scores of abandoned mines left in their place. Some of remaining mine leases are set to expire in the next few years. Some mine owners are hoping to get a renewal of their leases. There were around 60 to 70 mines in the yesteryears, as of now only 11 are working, and the labourers in the mines have dwindled down to 3 to 4 thousand in number from 60 to 70, 000 workers. Only some of the mines mine mica, most of the mines employ labourers to muck for feldsparⁱⁱ and sort it from the overburden, which has accumulated over the years on account of mica mining. Gudur also has industries in the insulating business, which employ, women workers. Moreover in Sydapuram mandal White Quartzite is also being quarried (mostly illegal) as there are some abandoned quarries in the area.

Villages Visited

➤ Dadichettipalli / Idarangapalli SC colony (Maadigas)

Around 30 people 20 males and 10 females work in the nearby mines. From the adjacent Yadava Colony (BC Community) around 40 people were engaged in the Shah mines and KMC mines. Some of the underground mica mines in the surrounding areas are Peltagini, kalyana rama, seetharam, BB Durga.

Our focused group discussion with them, on their experiences while working in the nearby mines revealed that the villagers were solely dependent on the mine for providing employment even when their wages do not even ensure them 2 square meals. But then there is no scope for

agriculture as the area has been reeling under severe drought for 3 years and the last year they had a severe cyclone which breached all the tanks. Thus agricultural lands have been laid waste which otherwise was an option in the olden days when there was sufficient water.

The village has 4 people who have retired from underground mine work when mica was being mined. As of now the laborers collect feldspar put in 8 hours of work in every shift. Of the 4 retired people one Palepu Venkataiah worked for 12 years and he claims he did not get retirement benefits at all. Palepu Ishwaraih too who has since retired joined the mines as a labourer when he was 16 years of age to support his family

Many of the mine labourers of Dadichettipalli said that they were suffering from Eosinophilia, silicosis, TB arthritis. All of them said that they suffered from fatigue and pain in the joints. But as all of them are contract labourers they could not be treated at the hospital created under the mica mine labour welfare act in kalichedu. The hospital asks for a photo identification card, which is given only to permanent work force. Or they ask for a letter stating that this person is an employee of a particular mine. We encountered Shesham Gorvaih who worked in the KMC mines and has developed silicosis TB after quitting his job in the mines. So he is in a unenviable position of having to prove that the TB is on account of his working in the mines and mica dust, but it is almost impossible to do so, further he is in no position to pay for his medicines and checkup which are a must. Hence he is getting himself treated on his brother Hari's name who is presently working in the underground mines in the Kalyanaram mine. Of course this is against the law but then he has no other option or else his condition will only worsen.

The women labourers are worse off as the mines are running only intermittently, but then they have permanently closed down the crèche's, and the hospitals in the premises. Thus the women are burdened with the fact that they have to take care of the kids somehow. The mines are very dusty places and one need not have a great imagination to see how the infants would be affected. Women work in night shifts from 2 in the noon to 10 in the night, women said that they were involved mostly in crushing sorting whereas men mostly do the loading. A visit to the shah mines confirmed that there are very high levels of dust to which these labourers are exposed to, which takes a heavy toll on their health.

When the mines were fully operational they employed a person to look after 10 children of the mine labourers, this practice has now become defunct. Hence kids are left at home, and as there are no schools in the vicinity there has been a spurt in the dropout rates.

In Dadichettipalli the water from the borewells is murky and the people said that it caused them gastrointestinal problems after they drink it, but then they have no option.

➤ **Jogipalli**

The second village that we visited was Jogipalli and had around 100 families belonging to the Scheduled Castes, Scheduled Tribes, Backward Class, Other Backward Class. Most of them work in the mines, as there is acute shortage of water, this has been compounded by the tank having breached during the recent cyclone. This has dried up lemon gardens, turned agricultural lands into wastelands. The government is dilly-dallying whether to fix up the breached tank, even after the umpteen representations by the people, taking refuge in the reason that as the sub canal of Telugu Ganga will come through, but neither this nor that has materialized as of now.

The hard work in the mines pays the men around Rs. 50 and the women get Rs. 30 as their daily wages. This is not an assured sum as it is dependent on the amount of material (feldspar) they

can collect from the overburden. As most of them are employed as contract labour the insecurity is very evident. This insecurity is compounded by the fact that the crippling heat and mica related illnesses hampers their capacity to work, evident in the fact that absenteeism is widespread. The labours are bereft of the benefits of free treatment by the hospital in Kalichedu, as they are contract labourers. And hence they have to pay for their medicines or have to pay through their nose to get treated at private hospitals, thus driving them into debt.

➤ **Turimerla**

From this village around 45 people work in the mines, of which 17 are from the schedule caste colony, mostly engaged in drilling, mucking, and jockey work. For the Jockey work they get paid around 52 Rs for drilling and mucking around 32 Rs. Here we met mica miners who have retired with no benefits at all, after working for many years in the mica mines. Like for eg P. Penchaiah worked as a driver for 20 years in the Kalyanram mines and retired with absolutely nothing coming to him. Around 200 people in the village now are employed in the Seetharam mica mines in Kalichedu, they work in 2 shifts (100 a shift). Previously in the same mines every shift had about 400 workers now this has been drastically scaled down to the present number and it is still dwindling. The people also complained that as the mining has contaminated their drinking water sources even the water from the borewells is highly contaminated. People reported illnesses ranging from gastrointestinal problems to fatigue, after consuming the water after filtering

➤ **Kalichedu Village**

Around 300 people work in the mines from this place as pumpdriver, in jockeying, drilling and as mine mates, as mica cutters as waste cutters as sorters, as compressor driver, etc. of which 100 are women, many of them widowed as their husbands have succumbed to silicosis- tuberculosis. Most of the women work as loaders, sorters, cutters. Most of them are contract labourers. Even for permanent labourers who get the provident fund etc the labourers claimed that the company is defaulting on its share hence they are no better in terms of retirement benefits. The miners alleged that labour welfare official visit was just an eyewash and his silence has a price and the labours are no better off!

The mine labourers also said that the system is so callous that to get an possible pension of around 500 Rupees one has to slog in the mines continuously for 30 years, and it is a rare event in case it happens as most of them quit halfway through as their bodies and the illness dog them and do not allow them to continue in their mine work.

In fact the irony is even with the hospital in Kalichedu itself the labourers are not given free treatment as most of them are bereft of the luxury of an id card as they are all daily wage labourers. Hence they are forced to pay through their noses for the medicines. There are only 5 or 6 permanent labourers with the identification cards, thus can avail free treatment at the Kalichedu mica mines labour welfare hospital. The most apparent neglect of this system are the women mine labourers who are mostly contract labourers and do not get the identification card, hence the spirit behind the mica mines labour welfare act is not served at all.

In Kalichedu we met women who have been widowed as their miner husband succumbed to the occupational diseases they had contracted, now in the twilight of their life they are forced to work. Some of them were Dasari Palamma, Gangalla Pallamma, Palli Ishwaramma, they work now in the mines earning Rs. 25 a day at best. Another lady, one Pathala Pullama's husband died due to TB.

A brief visit to PHC of Sydapuram

We decided to visit the primary health center .of Sydapuram Mandal, and met Dr A.V Krishnaiah to get a grasp of the kind of ailments people are generally afflicted with in the mandal, is there a linkages between the afflictions and the mica mining. He told us that mostly people who come in have respiratory problems like bronchitis and bronchiolitis. Also he was saying that in the surrounding villages there water is contaminated which is seen to cause nausea, vomiting, diarrhoea, eosinophilia which causes breathlessness. (He said they basically treat this with anti histamines.)

As per his records around 100 people who come in daily for treatment 35-40% have respiratory tract infection and he claimed that mica dust was the main cause in majority of the cases. Further most of the patients he reported tend to be labourers themselves or from the surrounding communities of mica mines. Once a patient is confirmed to have tuberculosis they refer them to the TB center in Nellore district. In the last nine months they have treated around 200 cases of TB. Of course we need to now understand how much of this is silicosis TB caused by occupational exposure or temporary exposure to mica dust. Dr Krishnaih also said the arthritis and body pains in general being a common complaint, he normally said that arthritis is an ailment normally seen with age mostly after 50 years, but he said that here he has seen people around 20 years of age to be afflicted with the degenerative connective tissue disease. This shows that there is a definite correlation between the mica dust and the disorders. After this we visited the Tellibodu mine, here feldspar is sorted from the overburden left over from mica mining to be sold. The Tellibodu minesite has an abandoned underground mine.

Sydapuram mandal has abandoned mines scattered all over, there obviously has been no attempt at reclamation or rehabilitation of these minesites. The local people claimed that some people have died after trying to swim in abandoned mines, or animals have fallen into it and died. Hence there is an urgent need to understand whether any proper closure of these mines are done or they are just discontinued and left as they are once they become uneconomical.

Women Mine Workers

The situation of women mine workers in the mica mines is pathetic and is represented by the fact that many of them who are widowed as their husbands had died due to "TB" which they had "contracted" while working in the mines are forced to work in the mica mines. Most of these women are elderly, but then they are left with no alternative other than slog for the entire day to earn a pittance of Rs 20. This is because their husbands did not get any retirement benefits nor were they ever compensated for the expensive treatment that they had to undergo after they were afflicted with mica related diseases.

The women labourers in the mica mines are generally more vulnerable then the men as many of them are widowed, they have no assured income it dependent on the what they can collect in a day, moreover they are invariably contract labourers on daily wages, in fact we did not come across a women labourer who had an ID card, which signifies that they have a "permanent " job. This meant that as they had no ID they have no free access to treatment in Kalichedu hospital. The welfare hospital in the Kalichedu has made it mandatory for patients to carry their ID card for availing free medicines, as the companies contribute to the welfare fund pay to suffice for the free treatment only for the permanent labourers which is necessitated by the mica mines labour welfare act, which will help in creating temporary boards. These temporary boards are created to ensure the welfare of the mica mine labourers which will cover various welfare schemes

including school, housing etc. But then the contract labour system has made the act defunct and the mica labourers are bereft of most of the welfare schemes detailed under the act.

Our visit to the Kalichedu hospital which has been created under the temporary board for the mica mines was symbolic of the apathy of the system as it wears a deserted look, even when there are thousands of miners suffering from TB in all the villages we visited, who have no access to affordable medicines. In fact the entire visit we were witness to remains of yesteryears like the derelict one rooms given to mining labourers long time ago, empty hospital corridors as labourers are not which have been closed down, empty hospitals, no officer to man the temporary board office in Kalichedu the doctor himself being given additional charge.

The Kalichedu hospital now caters to 11 working mica mines, but the labourers referred to the hospital are only the permanent labourers. Hence the roster of the hospital revealed that it gives free treatment only to 354 mine labourers. The other hospital at Talupur has been shut down, citing lack of funds to keep it running. But then there are some mica mines still running in the vicinity viz. SVKD and UM, Shri Rajeshwari, Saroja, Sulochana, Mica mines. The mobile van from Kalichedu hospital occasionally visits the minesites itself for giving free treatment to the permanent labourers, if the contract labourers want to get treated they need to pay for the medicines. The people from these villages complain that this is not sufficient to meet their needs.

We realized that the women who were employed to sort the feldspar from the overburden in the mica mines were old and they were forced to eke out a living as they were widowed when their husbands succumbed to TB after working in the mines and they were left wit absolutely no benefits and social security. Hence it is imperative that they do the hard work in hope for filling their stomachs. Most of them earn wages which fall way below the minimum wages.

Ananthamadagu

From Ananthmadagu women from around 100 families come to the abandoned mines and collect, sort quartz from the quarries. This is illegal but then it is the same story all over again that there is no option, say like agriculture. The abandoned minesite that we visited was teeming with women. The women work with no safety gear of any sort, we met women who have had stone chips which have hurt their eyes, they also have no drinking water facilities and have to carry water and if not subsist on the water at the abandoned minesite. The women earn about Rs. 3 to Rs .10 a “*Gampa*” of quartz, it depends on the quality. This is very little but then it has provided employment to the women from Ananthamadagu and their whole life is hinged on it.

Hazards due to exposure to Mica

The More We Learn, the More Things Stay the Same Reliable data on occupational safety and health -- particularly health -- are hard to come by. But it appears that in Gudur the mica miners have a disproportionately high number of mica miners who are afflicted with silicosis TB and other symptoms characteristic of being exposed to silica dust.

Micas are complex hydrous potassium-aluminum silicate minerals. There are more than 20 chemically distinct mica species with considerable variance in geologic occurrence, but all have essentially the same crystal structure. The micas crystallize with a sheet structure, the sheets being held together by relatively weak bonds resulting in the perfect basal cleavage of the micas. Silica occurs naturally in crystalline or in amorphous forms. In the crystalline forms, the tetrahedra are lined up in order and create a repeatable pattern; conversely, in the amorphous forms, the bonds are randomly oriented and the structure lacks periodicity. Quartz (mined in Gudur) is also silica in nature constitutes the overwhelming majority of naturally existing crystalline silica

Exposure

Occupational respiratory exposure to crystalline silica dust has long been recognized as the main culprit, the amorphous form being considered of low toxicity. However, some key notions must be kept in mind: Amorphous silica may contain crypto-crystalline silica or may be converted into crystalline forms during processing; for instance, in commercial products, a large proportion of the amorphous silica in diatomaceous earth is converted into cristobalite. Thermal treatment of amorphous silica dust may change it into micrometer-sized silica crystals. As an example, amorphous diatomite earths, if converted to a crystalline form, turn out to be one of the most fibrogenic forms of silica.

The most dangerous silica powders are those whose particles have a mean diameter less than 5 μ , the so-called respirable fraction. Airborne silica particles are not visible but may be very dangerous. Particles with a diameter larger than 5 μ hardly reach the distal part of the respiratory tract because they are intercepted and removed by the mucociliary escalator.

Data on non-occupational exposure to silica are scant. There is evidence, however, that exposure to both crystalline and amorphous silica may occur during not only the production but also the use of natural and synthetic compounds. There are reports of silica exposure in people of any social and economic class.

Beside inhalation, there are other ways by which silica can enter the human body. As an example, amorphous silica may be absorbed by skin or ingested as a minor constituent of foods and drugs. The risk is acknowledged in surface and underground mining, tunneling and quarrying but, although substantial, it is often unrecognized in the construction industry and other manufacturing sectors. Besides these activities, mainly involving exposure to crystalline silica, other occupations, cause exposure to amorphous silica.

Silica and human diseases

The relationship between exposure to crystalline silica and lung disease has been known since ancient times. Among the Greeks and Romans, Hippocrates described a metal digger who breathed with difficulty and Pliny mentioned protective devices to avoid inhalation of dust. The disease was classified as pneumoconiosis (from the Greek word meaning :dust), generally "dust in the lung", while the specific term silicosis was originally proposed at the end of the 19th century.

Chronic and acute silicosis are the best known diseases associated with silica inhalation, and the correlation with lung cancer is still controversial. However, it is now clear that silica exposure is associated with many other different disorders besides pulmonary silicosis and acute silico-protein emphysema, such as progressive systemic sclerosis, systemic lupus erythematosus (SLE), rheumatoid arthritis, dermatomyositis, glomerulonephritis (GN) and vasculitis.

In fact, at present, silica exposure may be a risk factor for human health not only for workers but also for consumers. The relationships between these silica-related diseases need to be clarified, but pathogenic responses to silica are likely to be mediated by interaction of silica particles with the immune system, mainly by activation of macrophages. As regards renal pathology, there is no single specific clinical or laboratory finding of silica-induced nephropathy: Renal involvement may occur as a toxic effect or in a context of autoimmune disease, and silica damage may act as an additive factor on an existing, well-established renal disease. An occupational history must be obtained for all renal patients, checking particularly for exposure to silica, heavy metals, and solvents.

Health surveillance and therapeutic management is necessary for temporary provisions of medical prevention measurements for workers with silica dust exposure.

One needs to understand the amount of free silica content in the dust and vary in accordance the time intervals of periodic health examinations of workers exposed to it. New workers must undergo pre-placement medical examination before starting work. These examinations should be conducted by physicians working in the local occupational disease hospitals or anti-epidemic sanitation stations, which are situated throughout the country.

Those who have been diagnosed as having silicosis receive free medical care and/or undergo rehabilitation. A comprehensive treatment regimen has been suggested for improving their clinical symptoms, enhancing their physical strength, reducing complications and for prolonging their lives, for positive results have already been observed.

In Gudur we need to understand the following;

- 1) The exact nature of the pathogenic link between silica and Pulmonary disease, renal disease in mica miners.
- 2) We need to retrospectively look into subjects exposed to an occupational hazard 10-20 years ago. And understand whether this exposure-related risk still operating, both in terms of the number of people exposed and the intensity of exposure?
- 3) What is the extent of exposure in the present situation?
- 4) As it is evident link between silica and renal diseases, we need to study this from an epidemiological point of view, with the help of any studies published by epidemiology units, or institutes for occupational safety and health, dealing with signs of renal diseases and deaths due to renal diseases in workers silica exposure renal disease) and/or studies published by nephrology units or dialysis registers, evaluating the frequency and type of professional exposure among patients with renal disease and if any silica exposure.

To answer these important questions, we can look at other studies, and information relating to Silica-related diseases including lung cancer and document the association between silicosis and TBⁱⁱⁱ

Legislative Framework in Operation for Mica Miners

Separate legislations have been enacted by Parliament to set up five Welfare Funds to be administered by Ministry of Labour to provide housing, medical care, social security, educational and recreational facilities to workers employed in beedi industry, certain non-coal mines and cine workers. The scheme of Welfare Funds is outside the framework of specific employer and employee relationship in as much as the resources are raised by the Government on a non-contributory basis and delivery of welfare services is effected without linkage to individual worker's contribution. The Ministry of Labour (Labour Welfare Fund Wing of Labour Welfare Division) is responsible for the administration of these funds which have been set up under the following Acts of Parliament:

The Mica Mines Labour Welfare Fund Act, 1946;

The welfare schemes formulated under the above enactments are as under: -

Health

- Provision of Hospitals, Static-cum-Mobile/Static Allopathic and Static Ayurvedic Dispensaries for mine workers in different parts of the country;
- Scheme for Reservation of Beds in T.B. Hospitals for mine workers;
- Scheme for Domiciliary Treatment of beedi and mine workers suffering from T.B;
- Scheme for re-imburement of actual treatment charges to beedi, cine & mine workers suffering from Cancer;
- Scheme for Treatment of Beedi & Mine Workers suffering from Mental Diseases;

- Scheme for Treatment of Beedi & Mine Workers suffering from Leprosy;
- Grant of Financial Assistance to Beedi Workers (including Gharkhata Workers) & Mine Workers for purchase of Spectacles;
- Maternity Benefit Scheme for Female Beedi & Mine Workers;
- Scheme for payment of Monetary Compensation for Sterilisation to Beedi Workers;
- Scheme for re-imburement of expenditure to Beedi, Mine & Cine Workers suffering from Heart Diseases;
- Scheme for re-imburement of expenditure to Beedi, Mine and Cine Workers for Kidney Transplantation etc;
- Scheme for provision of artificial limbs to mine workers; and

Social Security

- Group Insurance Scheme for beedi and cine workers.

Housing

- Financial assistance to mine managements for construction of low cost type-I and type-II houses for mineworkers;
- Integrated Housing Scheme for beedi & mine workers.

Education

- Award of scholarships to the children of beedi workers (including Gharkhata Beedi Workers), cine and mine workers;
- Composite Scheme for financial assistance to the school going children of Beedi and Mine Workers for supply of one set of dress, slates, note books and text books;
- Incentives on passing final University/Board examinations from High School onwards to children of beedi, mine and cine workers;
- Scheme to provide incentive/financial assistance of Re.1/- per day to female children of beedi, mine & cine workers for attendance in schools;
- Mid-day meals scheme for mine workers;
- Assistance to mine managements for running and maintenance of Central Library;
- Assistance for purchase of School buses to the mine managements;
- Grant-in-aid for recognised schools in the Iron Ore mining areas for purchase of furniture & equipment.

Recreation

- Provision of Audio-Visual Sets/Cinema Vans/Exhibition of Films for beedi and mine workers;
- Organising sports, games, social and cultural activities for beedi and mine workers;
- Holiday Home Scheme for beedi and mine workers;
- Supply of T.V. Sets to the Beedi Workers Industrial Co-operative Societies and mine workers;
- Establishment of Community Halls with colour T.V. sets in Beedi Workers Housing Colonies;
- Scheme to provide buses for transportation of mine workers;
- Setting up of Multipurpose Institutes/Developed Multipurpose Institutes for mine workers;
- Setting up of Welfare Centres for mine workers;
- Grants to M.P.Is/D.M.P.Is/Welfare Centres for mine workers; and
- Supply of Colour T.Vs. for mine workers.

Water Supply

- Financial assistance to small mine managements for sinking of wells; and
- Financial assistance to mine managements for execution of water supply scheme.

Some Observations

- One aspect was the plight of the widows who have been getting a raw deal as their husbands have succumbed to the mica related complications and they are forced into the same situation as mica mine labour as they have no other means of livelihood.
- Under the **Labour Welfare Fund Act, 1972**. / **Mica Mines Labour Welfare Fund Act, 1946** - Appointment of a women member in Advisory Committee and Central Advisory Committee is mandatory under these Acts. Here we need to know whether Andhra Pradesh has been exempted^{iv}, if so the reason?
- It is evident that even with all the welfare schemes it is not reaching the needy, in particular the casual/contract labour who are exposed to the dusty atmosphere in the mines. Hence it is imperative that the contract labourers who are working at present in the mica mines should also be included for getting benefits of the welfare schemes, outlined above.
- It is also important to understand the impact of mining over the decades on the health of the workers, the toll it has taken on the environment and the element of enforcement^v of above mentioned welfare schemes and state accountability needs to be realized
- Sydapuram mandal wherein we traveled extensively is dotted with scores of abandoned mines and these have become wastelands. There has not been any attempt at reclamation. We need to push for the cleaning up of the act. As the mess has been created we need to find creative solutions. Which will bring relief to the local populace.
- Many mines are also in the Reserve Forest Land, and the irony is we see the local tribals who collect the “Khartoum trees” for making fuel are being barred from entering into forest land, by the forest department. This is a basic contradiction, which needs to be addressed.

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- (i) Substitutes include acrylic, Benelex, cellulose acetate, Delrin, Duranel N, fiberglass, fishpaper, Kapton, Kel F, Kydex, Lexan, Lucite, Mylar, nylon, nylatron, Nomex, Noryl, phenolics, Plexiglass, polycarbonate, polyester, styrene, Teflon, vinyl-PVC, and vulcanized fiber. Mica paper made from scrap mica can be substituted for sheet mica in electrical and insulation applications
 - (ii) Feldspar A rock-forming mineral; industrially important in glass and ceramic industries; patten and enamelware; soaps; bond for abrasive wheels; cements and u; insulating compositions; fertilizer; tarred roofing materials; and as a sizing, or filler, in textiles and paper.
 - (iii) Mycobacterium tuberculosis is a significant human pathogen capable of replicating in mononuclear phagocytic cells. Immunity to Mycobacterium tuberculosis infection is associated with the emergence of protective CD4 T cells that secrete cytokines, resulting in activation of macrophages and the recruitment of monocytes to initiate granuloma formation. A subtle, fascinating link connects silica, TBC and autoimmune vasculitis, perhaps through some particularity in macrophage function.
 - (iv) Third Lok Sabha Third Lok Sabha (1962-1966) Iron Ore Mica Mines Labour Welfare Fund Advisory Committee, Andhra Pradesh and Mysore/Bihar/Madhya Pradesh and Maharashtra/Orissa (Exempted)
 - (v) ENFORCEMENT The responsibility for enforcement of the provisions of the above Act, in establishments where the central government is appropriate government, lies with the office Chief Labour Commissioner (Central) who is the head of the Central Industrial Relations Machinery (CIRM). Similarly where the appropriate government is the State Government, the responsibility for enforcement of the relevant provisions lies with them. The appropriate government would have inspectorates at appropriate level with given jurisdiction, with DG of Inspection at the Central level and Chief Inspector at the state level heading such inspectorates. The functionaries will have powers under S. 175 and 176 of IPC and S. 94 of Cr. P.C.