The nuclear radiation in a scrap market in west Delhi’s Mayapuri area, in April 2010, which led to the death of a worker and fatal injuries to many others is a shocking reminder of weaknesses in the system for tracking minor radioactive substances. Based on insights from Mayapuri, this commentary discusses the acute absence of occupational safety and health measures for workers in the informal sector, especially for those who work in extremely precarious and inhuman conditions.

Dark images of death attached to the chemical leakage of Bhopal and the nuclear tragedy of Chernobyl are still haunting our collective psyche, thanks to the ritually repeated visual streams in an age of televised reality.

The latest disaster of this kind is the radiation incident in the scrap market of Mayapuri Industrial Area in west Delhi in the first week of April, which caused one death and severe injuries to six others.

The scary episode began on 7 April 2010 after a scrap dealer and few employees suffered burn injuries and fell ill, apparently due to radiation. The subsequent enquiries led to the detection of a powerful radioactive isotope of Cobalt (Cobalt 60), which is normally used for medical purposes and for select uses in industry. While the initial media reports denied radioactive emissions and portrayed the incident as a case of a mild chemical leak, the presence of Cobalt 60 and “acute radiation” was confirmed subsequently. Panic was triggered in the locality and in the neighbourhoods of the National Capital Region when a team of nuclear experts identified 11 sources of radiation in the vicinity and when the investigative agencies were not able to immediately establish the source from where the radioactive material eventually found its way to Mayapuri.

The issue was soon discussed in Parliament and the minister of state for atomic energy explained that the scrap in question seemingly came from abroad, as the country has “strict rules and regulations in place”, to track the movement of radioactive material from domestic sources. This explanation of the minister was later proved wrong and the story soon took a different turn when the source of the material was traced back to a mass of scrap, auctioned by the chemistry laboratory of the Delhi University. Since then there have been a series of corrective directions from the authorities to regulate research institutions and universities to prevent negligent handling of radioactive material. In the meanwhile, one of the victims succumbed to the radiation injuries.

Neglect of Labour Concerns

The Mayapuri incident clearly exposes the laxity of the Atomic Energy Regulatory Board (AERB), which is considered the watchdog for radiological safety in our country and tracks every source of radiation periodically. The occurrence of such an event, despite the “rigorous accounting and inventory system” being followed by AERB, gives room for anxieties on the efficaciousness of extant arrangements for tracking minor radioactive substances.

An observant overview of the discussions in media suggests that apart from the flaws in monitoring mechanisms of radioactive material and larger concerns about nuclear safety, less has been talked about the everyday safety of workers, not only as immediate victims but also as those who face serious health and occupational hazards at polluted workplaces. Workers’ safety related to their livelihoods invites special attention at a time when the government is contemplating the revision of the Civil Nuclear Liberty Bill and when India is heading for a large-scale expansion of the industrial use of nuclear energy. Concerns have already been raised that the bill, in its existing form, transfers risk of a nuclear mishap on to the people at large, indemnifying the supplier of a nuclear plant and covers the liability of the operator in the event of an accident (Raju and Ramana 2010). The interests of workers and society at large are, thus, often swept under the carpet, while formulating far-reaching policies in a country where the majority of the workers eke out their living in most precarious and inhuman conditions.

The radiation episode and subsequent developments show the acute absence of protective legislation and social security systems to support the workers in the informal sector, who are deprived of any other means to rely on, in times of contingencies. The hurried admission of the minister of state for atomic energy in Parliament that “We do not have a proper law so far to ensure that compensation is paid to victims of such incidents” is an
elusive stand. It is very pathetic to note that even after decades of planning and legislation, the government lacks some legislative backing to provide immediate relief to the victims of an industrial accident – for which to a greater extent the former is responsible. As per the version of the workers and natives of Mayapuri, no authority has yet approached them with the offer of any kind of compensation. Though there have been some initiatives from petty scrap dealers of the vicinity to collect a relief fund through contributions of other workers and dealers for assisting the family, no major headway has happened so far.

Soon after the Delhi University was held responsible as the source of radioactive material, the vice chancellor of the university, in a press conference, came up with yet another embarrassing statement that “the university takes the moral responsibility and in case compensation is to be paid, the university community would contribute”. The statement brings an element of “charity” rather than a legally binding commitment of the operator of the radioactive material. It is high time to shift our social security systems from such charity-based interventions to right-based measures. Rather than waiting with begging bowls, the workers need legally enforceable options.

The commendable contribution of the National Commission for Enterprises in the Unorganised Sector (ncom) in prescribing a modicum level of social security to the workers in unorganised sector was, in fact, a good beginning towards realising such a right-based social security framework. However, the ultimate legislation that came in place, the Unorganised Sector Workers’ Social Security Act, 2008, is widely understood as a substantially diluted version of the bill proposed by the Commission. Even the Act of 2008 does have provisions for life and disability cover and employment injury benefit, though meagre. Further, the National Policy on Safety, Health and Environment at Workplace, 2009 also attaches prime importance to the protection to the lives and health of the workers in unorganised sector. Though meagre. Further, the Ultimate legislative backing to provide immediate relief to the workers in unorganised sector was only minimal priority is being given to occupational safety and health, while a lopsided attention is paid to regulating research institutions and universities, which use radioactive material, only minimal priority is being given to aspects of revising the pending civil nuclear liberty bill with strong provisions to support the interest of the working poor and people at large.

An analysis of the responses of governmental agencies, so far, suggests that the focus of interventions is gradually and steadily shifting away from labour concerns. While a lopsided attention is paid to regulating research institutions and universities, which use radioactive material, only minimal priority is being given to aspects of revising the pending civil nuclear liberty bill with strong provisions to support the interest of the working poor and people at large.

**Ground Realities**

A visit to the accident site and a situational analysis reveal that Mayapuri workers do share similar anxieties and workplace insecurities, vis-a-vis their counterparts in a spectrum of informal sector occupations. The scrap market in Mayapuri is adjacent to the industrial area divided into four blocks, dealing mainly with metal wastes, largely comprised automobile parts, copper wires, tyre parts and so on. There are hundreds of petty, small and large-scale scrap dealers. While most of these dealers are small entrepreneurs, dealing with smaller consignments procured locally, some of them are also linked to international networks, involving regular import and export of scrap materials.

The workers are mostly migrants from up, Bihar and other states near Delhi. Most of them work for 10-12 hours a day, for daily wages ranging from Rs 100 to Rs 250. The prominence of the migrant nature of such workers leads to a situation where long-term occupational health hazards are often under-reported. While some of the locals reported that some workers left the vicinity after the outbreak of radiation, the overall intensity of work in the market has not declined, visibly due to a steady influx of migrants and the fact that wage work is central to their survival. The fact that the work at Mayapuri came back to normalcy within a few days since the tragedy itself shows the acute footloose nature of the workers.

In Mayapuri scrap market, alongside unloading, processing and breaking the scrap, several tiny units are engaged in a range of repairing, recycling and rebuilding of a variety of things – including the manufacturing of automobile spare parts, petty agricultural devices, industrial tools.

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**Relevance of Preventive Planning**

The Mayapuri episode also suggests that our policymaking is still in a post-mortem mode. The investigations and corrective measures are often done only after tragedies have taken their toll. The immediate responses of various governmental organisations, including National Disaster Management Authority (ndma) and aerb show our inability to anticipate such disasters and to take preventive measures. For instance, it is only after a few days of the Mayapuri incident, ndma could plan for a special training programme for doctors – to handle radiation cases. In a country which witnessed the Bhopal gas tragedy, the world’s worst ever industrial accident, due to a chemical gas leakage, there is no special requirement for educating policymakers and social actors on the importance of planning and investing on security measures. Despite having dedicated national level institutions that are mandated to work on occupational safety and health, quite often, we miserably fail to provide protection to the lives and health of the labouring poor.

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and lighter machinery. The main categories of work in the market include loading and unloading, breaking and sorting, petty manufacturing and so on. In all these categories, no female worker was found. There are also some waste pickers, who wander around the shops to gather metal pieces and powder. To separate the ore from the soil, they use a magnet-attached broom and a filter. There are women, children and elders among these workers, who are often treated as encroachers by other workers and often labelled as “thieves”. Most of these most marginalised are unaware of the gravity of the nuclear radiation and still continue to search for “luck” in the scrap market.

The non-observance of safety measures at work in a polluted work environment, does not allow the workers to continue for long. Many of them eventually develop respiratory problems and other fatal diseases and leave after a few years of work. In a roughly 35-year-old scrap market, only a negligible proportion of workers are above 50 years of age. Among the elderly, a good proportion is found engaged in marginalised work categories – of helpers, supervisors, which do not require much physical exertion and of course fetch only meagre payments.

The majority of the workers stay in localities which are in commutable distances, while some of them stay closer to the scrap market or in dwellings adjacent to their workplace. They also act as the custodians of the scrap during nights and odd hours. Apart from workers’ families, there are several households within a few yards from the site of radiation. Most of these local residents do not have any direct instructions to avoid further untoward happenings and media reports and newspapers still remain as their major source of information.

The plight of tiny and small scrap dealers is not very different from the migrant workers in the locality. Some of the petty dealers pointed out that routine visits of police and other officials are only meant for collecting their share. In such a situation, they fear that the recent announcement of the Delhi mayor to monitor scrap dealers will only lead to further corruption and rent-seeking. There was absolutely no trace of trade unions, but there is some weak collectivity among petty dealers. Lack of organisational backup and the heterogeneity of worker categories make the marginalised workers in Mayapuri scrap market mostly invisible.

**Conclusions**

On the whole, the issues facing Mayapuri workers are akin to those of a multitude of categories of workers in the informal sector – be it the case of workers in ship breaking yards in Alang, Kolkata or Mumbai, or those who work in the mushrooming e-waste processing centres of metropolitan suburbs. Thus, while learning from the specific lessons of Mayapuri, we need to treat the disaster as a strong signal that highlights the acute absence of social safety nets for workers in the unorganised sector as a whole.

The Mayapuri incident also shows the dangers of the growth and spread of value chains and production systems (which even cut across national boundaries) that often lead to dumping of “dirty jobs” on the regions which are located at peripheries and on the workers in marginalised situations. Resisting such social dumping has to be figured into the policy planning as a priority agenda to avoid further catastrophes.

**REFERENCE**