Abstract

The decade of 1990s saw the rise of environmental concern in Delhi, the capital city of India. Related events led to a court case which resulted in the judgment for relocation of industrial units within the city to the peripheral areas. Interesting to note was the overlap between environmental concerns, city planning and conflict of interest of various groups. Taking up the framework of environmental justice, the paper critically looks at this concept through the case of Delhi.

Environmental justice has been a widely discussed theme in literature and has impacted policy decisions at various levels. The idea of environmental justice has embedded within it the notion of particular class/race being adversely affected in terms of environmentally hazardous circumstances. The paper explores the appropriation of the meaning of good environment and environmental justice by the affluent and the vocal class, hence undermining the exact values embedded in the theme while also endangering the rights of the vulnerable sections.

Using data from the field-study conducted in new industrial area of Bawana, the paper reflects on the perspective of labour and small industrial owners who were adversely affected in the case. It also engages with the questions of labour rights and dignity, avenues of overall growth and development, which were negatively affected due to the complex interplay of environmental concern, class interest, city planning and role of state institutions in context of an urban space. The paper argues that overall growth and development of vulnerable groups with dignity is possible only when the questions of environmental protection, city planning and development are addressed in a holistic rather than a fractured manner.

Introduction

Cities are marked by varying dynamics. While serving as spaces of residence, culture, economy, consumption and socio-cultural exchanges (Glaesar et al 2001; Scott 1997), cities are also characterized by the existence of contradictions and conflicts over various urban elements such as resources, opportunities, identities (Harvey, 2003; Leitner et al, 2007; Philip & Mercer, 2002; 2007).
Crawford 1995; Blomley, 2003; Malone, 2002; Roy, 2011). Among various contested domains in the cities, environmental politics in relation to urban space provides as interesting arena of enquiry. It is the most critical aspect when it comes to translating urban imageries into reality through spatial planning of cities. While spatial planning is based on the ideas and desire for organized and functional arrangement of different structures and activities within the cities, it cannot be ignored that planning also is an exercise that prioritizes certain needs, desires and perspectives over the others. This gives rise to contradictions and conflicts over urban space which manifests not only in terms of allocation and occupation of space, but also in other terms such as nature of usage of space, how spaces are to be designed, issues of access (private and public ownership). This multidimensional conflict over urban space has embedded within it the imaginations and needs of different socio-political groups that reside in the cities. Struggle over the meaning of good environment and efforts to achieve it in an urban space can be seen in similar frame.

It is interesting to note that spatial transformations do not necessarily work alone. They are, many a times, coupled with the ideas of city development, infrastructure creation or with environment protection. While all of these may be justified in terms of modernity and the dominant development discourse of the current times, the impact that these transformations have on different groups of urban residents cannot be ignored. The inequity and injustice resulting from the spatial transformations in the cities are critical points of enquiry. This paper looks at one of these cases of spatial rearrangement which was hidden behind the debates on environment in the city which resulted in conflict and gave rise to situation of injustice for certain groups. The paper engages with the environmental debate that unfolded in Delhi in the 1990s to demonstrate the complex interplay of class relations, state actions, conflict between visions and perceptions of the city, and which later went beyond the environmental debate and came to be perceived as politics over how urban space needs to be rearranged. The paper argues that environmental injustice in a city results from an intersection of various processes- city planning, bureaucratic regime, legal dynamics and the larger city development debate that dominates at any point of time.

In context of Delhi, the case that this paper takes up, environmental debate that dominated the city in the decade of 1980s and 1990s became a crucial factor that shaped the urban imagination
for the middle and upper middle class. The paper engages with the elements of the debate and further studies the impact of the solution that was forwarded on the vulnerable sections involved. Through the empirical information from the field-study in Bawana Industrial area, the paper argues that transformation of the city with the intention of fulfilling particular urban imaginations, desires and needs of a certain class has led to a situation of spatial injustice, which has further added to the vulnerability of the other sections. The meaning of good environment was appropriated by particular groups and the vulnerable sections involved in the case came to face a double jeopardy.

**Environment, Spatial Politics and Urban Transformations**

Delhi is an interesting case to study how spatial rearrangements have taken place in the backdrop of development and environment protection. Such changes in the city of Delhi can be located both historically as well as in the modern times. The idea of changes in the planning of the city to make it look modern, aesthetically desirable, and a clean socio-cultural space occupied by the civilized gentry is not new. Modifications in the order, layout and planning of the city are strategized around the ‘constellation of issues that are bundled together as environmentalism’ (Sharan 2006: 4907).

According to Sharan, the major constituents of this idea of environmentalism included infrastructure and public health, nuisance and noxious trade, pollution and zoning, standards and techno-science, and environmentalism through legal rights. It was in these domains that most of the changes in colonial Delhi post-mutiny were implemented. The changes during the colonial times were executed more with the intent of demarcating the space of the British from that of the Indians and also to introduce a touch of modernity in the traditional landscape of Delhi (ibid: 4906). Parallel to electricity supply and water canal installations, changes like road widening was taken up to create disease free space; along with these, land use and drainage regulations evolved while unhealthy trades, polluted air, badly constructed and ill-ventilated habitations, poor drainage were considered reasons for bad environment (ibid). These ideas of good environment and city planning can be seen in context of what Margo Huxley (2006) calls generative spatial
However, Sharan also comments that all these changes in the spatial nature of the city which was carried out on the pretext of environment was accompanied by dispossession on part of the working class and criminalization of various lower class occupations and activities like tanning, dyeing, tebazaari, leather trade, lime kilns, and slaughter houses. Hence, during the British rule, spatial transformations led to conflict of interest and threatened the working classes.

Post-independence, development of the first Mater Plan of Delhi (henceforth, MPD) in 1962 by Delhi Development Authority (henceforth, DDA) marked the first attempt at organized planning of the urban space. The spatial modifications and transforming of the pre-independence era was took a new vigour and form backed by the intention of the state and the legitimacy provided by it. Based on the ideas of zoning, the Master Plan marked differentiation between different purposed for which land in the city was used. This led to the zoning of the city into a number of use zones such as residential, commercial, industrial, and recreational. The plan faced much criticism as it was seen to be embedded in modernist vision of planning (Batra 2004) which overlooked the organic growth pattern of the city. The modernist vision of the city enshrined in it was completely out of sync with the economy, society and polity of a post-colonial Third World country (ibid). Despite the criticisms, the Master Plan remained the basis of all developments, although violations of the plan also existed as in during the time of Asiad Games when implementation of Master Plan was withheld.

In the period post 1990s, with the liberalization of the economy the dreams of developing Delhi into a world class city began to take shape. This dream became manifest in the plan documents as well as the statement of the political leaders (Master Plan of Delhi 2021). This desire of

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2 Huxley discussed three kinds of rationalities which can be found in the spatial planning of cities: dispositional rationality, generative spatial rationality, and vitalist spatial rationality. Dispositional spatial rationality is rooted in the desire for order and organization of city elements into clean compartments that make them easy to be seen, understood, controlled and more legible. Generative spatial rationality draws from the notion of public health and supposes that disease and moral decay occurs due to bad environment. It problematises the accumulation of diseased and unproductive bodies and argues that light, air, sanitation, circulation and hygiene would repair the physical and moral damage by creating diligent working class. Vitalist spatial rationality believes in the uniqueness of a city in terms of history, natural environment, location and experiences of evolution. City transformation during the colonial times can be related to generative spatial rationality due to its obsession with hygienic space.
transforming the city was most evident in spatial cleansing aimed at creating an aesthetically pleasing environment which matches the world standards and development of infrastructure that supported such a vision.

While this vision of Delhi was taking shape, the city also became a ground of opportunities for migrant labour seeking employment (Chakraborty 2001). Contradictions began to appear when the infrastructure of the city could not accommodate this working population which then came to be viewed as the illegal population, creating nuisance. Migrant working class began to be perceived as the encroachers on the space which rightfully belonged to the legal residents of the city. There developed a liminal space between legality and illegality where the worker found itself and negotiated its daily life in this grey zone (Batra 2004).

When the city was shaping itself to welcome international investments and multinational corporations, there was a requirement of developing an environment suitable for the business. These new requirements and developments stood in contrast with the small industrial and manufacturing process along with other informal economic activities in the city (Nigam 2001).

This period, along with changes in the economic environment in the city, also witnessed the shaping up of a particular type of environmental concern which has been categorized as bourgeoisie environmentalism (Baviskar 2003). This type of environmentalism was associated with the upper and middle class who connected clean environment with the notions of public health, aesthetic landscape and spatial rearrangement suitable to their minds. While this understanding of environmentalism was on rise, public interest litigations (PIL) became a tool in the hands of the Resident Welfare Associations (RWA) to approach the judiciary with their notions of environmentalism in mind. In the imagination of ‘clean and green Delhi’, demands of a city free of poor, slum free city, became attached (Veron 2006).

It was in this backdrop that the problems of environment in Delhi came to be associated with a failure of implementation of Master Plan and occupation of space by the small scale industries. Following this, the solution to the whole issue was seen in a rearrangement of space in context of industries. The following section will briefly describe the case leading to the judgment for relocation. This will be followed by an analysis of the impacts of this spatial rearrangement, how far it served as a viable solution and what effects it had on the work force and industry owners.
Environmentalism, Planning and the Question of Space

In 1985, a noted environmental lawyer, M. C. Mehta drew attention to the growing environmental pollution in Delhi by filing a petition with the Supreme Court of India. While the original petition focused on the stone crushers in South Delhi and Haryana as a source of air pollution, another petition filed under the same case in 1994 drew attention to the existence of many industrial units in non-conforming zones and demanded that these units be closed down. In 1996, the judgment to the long pending case recognizing the issue of pollution in Delhi noted that

Delhi is one of the most polluted cities in the world. The quality of ambient air is so hazardous that lung and respiratory diseases are on the increase. The city has become a vast and unmanageable conglomeration of commercial, industrial, unauthorised colonies and unplanned housing. There is a total lack of open spaces and green areas. Once a beautiful city, Delhi now presents a chaotic picture (M. C. Mehta vs. Union of India and ors, 1996 SCC (4) 750).

The judgment identified the solution in decongestion of the city and argued that

The only way to relieve the capital city from the huge additional burden and pressures is to deconcentrate the population, industries and economic activities in the city and relocate the same in various priority towns in the NCR (ibid.).

It must be noted that the understanding of pollution and the solution that was proposed to solve it was rooted in the logic of zoning criterion which was the basis of the Master Plan of Delhi (1961, 2001). As per the plan, conforming zones were marked out which the state would develop for industries. Master Plan of Delhi 2001 (DDA 1990) prohibited the existence of hazardous/noxious industries in Delhi. All such industries were to be shifted to the NCR regions within three years of publication of the Master Plan (ibid.). The concerned units were supposed to submit reports to the concerned authorities within a period of one year of publication of Master Plan 2001 (ibid.). Delhi administration was given the task of identifying and preparing a list of the hazardous/noxious units which were to be shifted out of Delhi within three years (ibid.) The main ideas behind the shifting of industries were decongestion of the city, reduction in pollution and traffic problems. However, the court noted that no action had been taken in this regard even after three years. Delhi administration as well as the hazardous industries was held
responsible for the illegal functioning of industries listed under category H (a). Heavy and large
Industries listed under the category H (b) were also to be shifted out to NCR and Delhi
Metropolitan Area (DMA) but they had continued to function even after six years. The court held
this to be violation of Master Plan and did not accept offers for modernization (ibid).
It had been noted that the industries in Delhi were contributing 30% to the air pollution while
also adding to the pollution in water. The court noted that in 1995, 8,378 industries were
functioning in the non-conforming zones thus violating the Master Plan. Apart from the
industries functioning in non-conforming zones, 256 industries functioning in conforming zones
were also hazardous and noxious and were to be given notice for relocation (ibid: 6).
In September, 1995, the court ordered Delhi Pollution Control Committee (DPCC) to perform
surveys and prepare a list of Industries in ‘H’ category. DPCC prepared a list of 341 industries
under categories H (a) and H (b), the compilation dated September 25, 1995. Along with this,
two other compilations were available: one, dated August 23, 1995 consisted of 171 industries
and the second, dated, Nov 3, 1995, consisted of 708 noxious and hazardous industries. This
made a total number of 1220 hazardous/noxious/heavy industries that were to be relocated.
However, the categorization of these industries was challenged in the court (ibid. 10). The court
ordered further enquiry after allowing the discontented industrialists to file objections and held
that the decision of DPCC in this matter will be regarded as final (ibid. 11). Eventually, 168
industrial units were identified as hazardous/noxious/heavy/large industries and were directed to
relocate outside Delhi (ibid: 17). These units were directed by the court to stop functioning in
Delhi from November 30, 1996 and were asked to relocate to other parts of the NCR region.
The question of labour was integral to the issue of relocation of the industrial units. It was
suggested in the judgment that ‘since the NCR towns are within the commuting range of Delhi
and each other, the labour can either shift to the new sites or at least can keep commuting till
they finally shift to the new place. The judgement stated the following provisions for the labour
of the units to be relocated.

(a) The workmen shall have continuity of employment at the new town and place where the
industry is shifted. The terms and conditions of their employment shall not be altered to their
detriment.
(b) The period between the closure of the industry in Delhi and its restart at place of relocation shall be treated as active employment and the workmen shall be paid their full wages with continuity of service;

(c) All those workmen who agree to shift with the industry shall be given one year wages as "shifting bonus" to help them settle at the new location,

(d) The workmen employed in the industries which fail to relocate and the workmen who are not willing to shift along with the relocated industries shall be deemed to have been retrenched with effect from November 30, 1996 provided they have been in continuous service (as defined in Section 25B of the Industrial Disputes Act, 1947) for not less than one year in the industries concerned before the said date. They shall be paid compensation in terms of Section 25-F (b) of industrial Disputes Act, 1947. These workmen shall also additional compensation;

(e) The "shifting bonus" and the compensation payable to the workmen in terms of this judgment shall be paid by the management before December 31, 1996.

(f) The gratuity amount payable to any workmen shall be paid in addition (ibid: 22).

Delhi government executives were given a deadline for relocation till 1999 which was not followed; they sought time till 2004 which was turned down. The second phase of closures began around 2000 and this time, all the units in the non-conforming zones, whether polluting or non-polluting were targeted (Kathuria 2001). Also, this time, no compensation was awarded to the workers.

The Alternative Views: Debates and Discontents

Design and implementation of development policies result in inequitable outcomes, many a times (Kumar 2006). This case became a classic example of the same when the spatial rearrangement as solution for the environmental problem posed other problems. While the court derived its logic of relocation from the violation of Master Plan by the industries, what was missed out was that the targets set in the plan for development of conforming industrial zones were not met by the DDA. The anticipations in the plan regarding residential and industrial growth proved to be insufficient on one hand, and on the other, even the targets that were set were not fulfilled. DDA which was the maker and implementing authority of the Master Plan was seen to be violating its very own mandate of equity when instead of developing facilities for the urban working class, it subsidized the facilities for the rich (Maitra 1991). Since the ground reality was a demand for infrastructure much more than that anticipated in the MPD, industries came up in the non-conforming areas support of the local politicians (Kathuria 2001). The
Master Plan directed development of 66 industrial areas in Delhi by 2004, the authorities had developed only 31 conforming industrial areas.

It is interesting to note that while the new spatial rearrangement was mandated on the grounds of violation of the plan, certain other cases of violation of Master Plan were not viewed through similar lens. For example, the development of infrastructure during the Asiad Games held in 1982 came up in violation of the Master Plan (ibid.). Another example is the demolition of settlements in Yamuna Pushta on charges of polluting river Yamuna (Baviskar 2011). However, the same area witnessed the construction of Metro Rail Depot, Delhi Secretariat, and the Akshardham temple being built on the riverbed of Yamuna in complete violation of the plan (ibid.).

Such bias was also reflected when protection of environment took flexible form when interests of the urban gentry comes in conflict with that of the working class; in such cases, interests of the rich gain precedence (Bhushan 2009). Ghertner (2011) noted,

In 2003, the Ridge Bachao Andolan (Save the Ridge Movement) submitted a petition to the Supreme Court of India challenging the construction of India’s largest shopping mall complex for being built on Delhi’s southern ridge, a protected green space, in the up-and-coming South Delhi colony of Vasant Kunj. This constituted a land use violation of the statutorily binding Delhi Master Plan. Expert testimony by the Delhi Development Authority (DDA)—the agency that drafts and is legally bound to implement the Master Plan—defended the project in the Court for being “planned” and thus legal because of the involvement of professional builders, its high-quality construction, and its strategic function in boosting Delhi’s architectural profile. Showing graphic models and architectural blueprints of the proposed development, emphasizing the project’s 300 million USD price tag, and describing the mall as a “world-class” commercial complex, the DDA suggested that the visual appearance of the future mall was in itself enough to confirm the project’s planned-ness. How could a project of such strategic importance in Delhi’s effort to become a world-class consumer destination not be planned, the DDA’s lawyer argued. Even after its own “Expert Committee” found the complex in “flagrant violation” of planning law, the court concurred in early 2007, allowing construction to go forward based on the mall’s capital-intensiveness and associated world-class appearance.

3 While the settlements in Yamuna Pushta were charged with polluting the river Yamuna, Sajha Manch, a collective of NGOs in Delhi, in their studies revealed that owing to the low rate of resource consumption, the people in the settlements contributed hardly 0.4% of the total pollution in the river. While industrial sewage was a major polluter, a massive amount of pollution was being caused by the sewage discharge from the colonies consisting of the upper and middle class populations. It was reported in the study by in the years following the demolition of approximately 40,000 jhuggis which displaced nearly 2 lakh people, CPCB found no conclusive evidence of improvement in the quality of water in Yamuna.
These examples reflected clearly that the violation of Master Plan had taken place frequently. The existence of industries in the non-conforming area was not the only case of violation. However, from the above examples it is clear that in different cases the role of the state and judiciary had been different depending on who was the party at fault. In the cases of Akshardham temple and the Malls in the Southern Ridge, the violations were seen as steps necessary for upholding the modern image of the city of Delhi. At the same time, the way the state and judiciary dealt with the industries in the non-conforming area was different.

Apart from the differential treatment to different kinds of violators of master plan, the issue of how labour concerns were treated is also important for the discussion. The discussions over labour issues were centered on loss of jobs and compensation. Throughout the course of the case, workers were not considered as an affected party (Navlakha 2000), despite the fact that workers are one of the first victims of industrial pollution both as an employee and also in their roles of family and consumers (Heine and Mautz 1990). While the judgement laid out terms and conditions regarding protection of workers during the process of relocation, it said nothing regarding protection of employment of the worker after the factory relocated (Srinivas 1998). Workers, at a *jan sunwayi* (public hearing), held by Dilli Janwadi Adhikar Manch in 1997 reported of being forced to leave their jobs before the closure date so that the units had lesser number of people to compensate (ibid: 447). On the other hand, some of the factory owners complained that they had to pay the workers despite the function of their units being suspended (ibid: 448). Since lakhs of workers were supposed to be affected by the relocation drive, it was argued by some that the areas which had developed industries to nearly 70% of the area may be declared conforming zones (ibid).

The most crucial question that came out of the debate was if spatial rearrangement would actually solve the problem of pollution? It was argued that relocation would only transfer the source of pollution to other neighbouring areas of Delhi (Kathuria 2001). Hence, while the problem itself was not resolved, the solution of spatial rearrangement gave rise to vulnerability of populations living in areas where the industrial units were to be relocated. Also, nothing was said about improvement of life in the peripheral areas where the new industrial area was to be developed and it was seen as a small price to be paid by the peripheral citizens for the health of people within the city of Delhi (Kundu 2003). Another notable point was that while the workers in the industry were the first victims of pollution, issue of their health or problems due to
pollution received much less attention (ibid). It is also to be noted that the Master Plan 1962, violation of which had formed the basis of all the havoc, provided for spatial segregation of residential, commercial and industrial zones but did not provide for working class residences in the industrial areas (Gupta and Ghosh 2006).

**Impacts of the Spatial Rearrangement: Narratives from the Field**

Relocation of industries took place in two phases which moved the factories to the neighbouring areas of Ghaziabad, Haryana, Alwar, Baddi and other places. In Delhi, Bawana was one of the sites where land was acquired to develop the new industrial area.\(^4\) In the period between closure of industries and allotment of plots in Bawana industrial area including development of required infrastructure and commencement of functioning, all the units remained closed, and the labour remained unemployed. It was found in the field that when the functions resumed after allotment of plots to area of relocation, merely 30\% of the previous workers returned to work; the rest either took up other jobs or returned back to their villages (Srinivas 1998).

Field work was conducted in Bawana Industrial area in 2014 to study the impact of spatial rearrangement on the relocated population. Narratives from the field (interviews conducted with workers, unit owners and supervisors) which are discussed below give an overview of the politics of space that the workers and units owners found themselves surrounded in which further deteriorated their situation after relocation. Most importantly, the narratives show that the

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\(^4\) The region of Bawana lies near the North West border of Delhi in the North-West *tehsil* and district of Delhi along with the neighbouring areas of Nangal Thakran, Bajitpur, Daryapur, Majra Dabas, Sultanpur Dabas and Ghogha, Holambi Kalan, Pooth Khurd, Khera Khurd, Ali Pur. Earlier, the area was characterised by large tracts of farmlands belonging to the farmers of Bawana Village, which was bought from them for development of Industrial Area. Delhi State Industrial and Infrastructure Development Corporation (DSIIDC) was responsible for land acquisition, demarcation of plots and allotment to the industrial units that were relocating to this area. DSIIDC collaborated with RITES Ltd., Architects’ Bureau, Redecon and Tetra Tech for the development of acquired land into an industrial estate at Bawana. The structural plan of Bawana Industrial Area was approved by the Technical Committee of DDA in 1999 following which the area was developed. Bawana Industrial area has factories involved in a range of activities like iron recycling, footwear making, cement, plastic and electronic parts for equipments, rubber recycling, etc.
relocated population views the whole issue as an agenda of cleaning the city of unsightly activities and make it more suitable for modern needs rather than an issue of environment alone. Relocation resulted in loss of employment of the workers, setback to the industrial units and a huge issue of physical relocation. One of the respondents reported that the new industrial area was to be developed on a ‘no profit-no loss basis’. However, the land which was acquired from the farmers of Bawana at lower price was sold to the unit owners at ten times the price. The respondents complained that agreeing to relocate actually trapped them while many other industrial owners were able to pay huge sums as bribe and continued to work in original locations. The official process for allotment of plots was through a draw but the unit owners believed the process to be mere pretense and bribery played a huge role in determining where the plots was allotted. Those who could afford to pay heavy bribe were able to get plots in the sites within the city of Delhi like Okhla or Jhilmil Industrial area. Some of the units were allotted places in areas which did not have any water supply or electricity. The units owners reported that it was due to lack of legitimate industrial zones and infrastructure (that the government was required to develop) that they had to set up their work in non-conforming zones. The unit owner highlighted the paradox that while water and electricity connections were provided by the state agencies to their set ups, later the same state deemed them illegal. It was also brought to notice that time and again bribe had to be paid for running the factories. When the issue of pollution arose, the respondents came to know about it only after the initial orders were passed. The court could not take into account the concerns of the unit owners or the labour as the state had not taken enough care to present it. When the knowledge of the order reached the factory owners, they approached the court which softened its stand to some extent. However, the haphazard manner in which the events took place, there was no proper identification of polluting and non-polluting industries and all the units in non-conforming areas were attacked.

Factory workers who had experienced relocation believed the whole issue of pollution was merely a way to drive the workers and their work outside the city. They felt that the gentry wanted greenery and cleanliness around them while work of poor people was considered polluting and hence was attacked. One of the supervisors added that the benefits which came from the factories to the economy were desirable for the government; but the people involved in
this process had become undesirable. The workers who had continued to work in the industries after relocation argue that they have seen phases of complete unemployment or part time employment with meager wages. Since struggles and resistance had emerged from the unit owners, NGOs, and the workers, there was some hope but it soon became evident that the worker will not receive anything. Some of the workers who had developed skills by working in the industries had to take up unskilled work after loss of employment. After relocation they have been working in units different from previous ones and some had to learn new skills without any significant assistance.

Despite the fact that the whole issue of relocation was a consequence of environmental debate, the workers suggested that the issue had much more to it than merely an environmental agenda. This was mainly because the environment in the new industrial area was hardly monitored. Some unit owners suggested that even after relocation, they have brought no changes in the method of functioning. They suggested that if the relocation was really about pollution, then pollution committee would have been checking this area also, but no sincere pollution check was being maintained. Polluted work environment had become a norm for the workers. While the workers did complain of health problems emerging out of their working conditions, it was considered a necessary part of the work from which there was no escape.

Some workers differentiated between the perception of environment that was being debated in Delhi and their own work environment. They said that the discussion of environment was all about how a city should look beautiful and the debate at no point considered the working or living condition of the workers. One of the respondents also raised the question if Delhi was now clean after relocating industries. Another pertinent question raised by one of the respondents was about the environment of the areas surrounding the new industrial location. Why was the government not concerned about what will happen to the environment of neighbouring areas of Bawana Industrial Area. This reflected the most fundamental gap in the understanding of environmental problems and their solutions being practiced.

Proper services were found to be lacking in the new industrial area. Drinking water supply was insufficient despite the water pipelines that had been laid by the government. On the rare occasion when water was supplied through the pipeline, it was hardly for two hours in a day. Availability of informal services like rehri for food, dhabas, tea etc. on which the workers
relied was no more existent in the new industrial area as the informal markets, running parallel to the industries in the earlier locations, were no more present.

The absence of approach roads was another problem due to transportation of raw materials to the area was very difficult. In the absence of markets nearby, purchase of even small inputs for their industry needs to be sourced from distant markets such as Nangloi, Wazirpur or Piragarhi. This again had an impact on the productivity of the factories. The unit owners faced another problem of availability of labour for loading, unloading and transportation of goods.

Lack of health services was a critical issue faced by the workers in the new industrial area. In the factories, accidents or physical harm was very common. A government hospital (Valmiki Hospital) was located at a distance of 2 km from the Industrial Area. However, they refused to treat the accidents that happened in the factories. ESI hospitals are supposed to cater to the population in the industrial areas. However, the nearest ESI hospital was located at a distance of 10 km in Rohini. While there was a private nursing home to which the government hospital referred the industrial accidents, the cost of treatment remained high. Some first aid provisions were maintained within the factories but they were not enough, considering the threats that the labour faced in its work environment.

Relocation to Bawana gave rise to the problem of accessibility for both the industrial unit owners and the workers and proved to be a huge setback in terms of availability of workers. Owing to the distance from the central part of the city, and lack of proper public transportation, commutation time and cost increased. This had an impact on availability of labour for the industries. Some of the workers rented accommodation in neighbouring areas of Bawana and commuted daily by cycle. Owing to high rent and meager wages, the workers could no longer afford to stay with their families. Also, given that there were no proper educational facilities around the area that could be accessed and used by the workers, the children were sent back to villages. There were many workers who could not even afford to rent accommodation in the nearby areas and soon left jobs. To solve the problem, some of the unit owners had created space in their factories for the labour to stay but the families could not stay with them. When the industrial area was developed, there were plans of building 5000 flats for the workers. Each factory owner could apply for a maximum of three flats for his workers. Initially, around the year 2006-07, some 6000-7000 flats were constructed. However, no facilities of water or electricity
were provided in these flats and hence they remained vacant. In the recent time, some work had again begun in these flats. While the labour houses are now being provided with facilities, a unit owner sceptically observed “we don’t know if these will be given to the labour or will be sold under some housing scheme”.

Safety conditions were poor in the area and the factories were vulnerable to thefts at night. The workers suffered from instances of loot. Female workers especially felt vulnerable as there were very few women workers in the area. Also, emptiness of the roads in the industrial area, insufficient transportation facilities and lack of activities around the factories added to the feeling of insecurity.

While the issue of environment was the triggering factor in the whole debate of pollution and industrial relocation in Delhi, the workers and unit owners interviewed in Bawana Industrial area were of the opinion that it was an issue of who should be a part of the beautiful city and should be excluded from it. One of the unit owners suggested that after relocation, state officials were not worried about the environment of the areas to which industries relocated. It was reported that in the last four years no environmental monitoring had been conducted. An interesting question posed was that the city sprawl will continue; where will the factories be further pushed?

The unit owners asserted that they contributed to the economic growth rate of Delhi but since their work was not sophisticated enough for the modern look of Delhi, they were removed on environmental pretexts. Unit owners reported that due to relocation and the associated problems, many units became uneconomical and closed down. In Bawana Industrial Area, large numbers of units were observed to be closed. People said that either they have closed down due to losses or they have returned back to the city and functioning illegally due to collaboration with the local authorities. Also, despite the huge amount of furore that was created over relocation, a huge number of factories continue to function in the old areas. It was realized by the actors in Bawana that the relocation has not really addressed the problem of pollution, despite the fact that whole controversy started with this issue.

**Conclusions**

The notion of space in the cities today cannot be understood merely in the geographical terms. It has become a political entity essentially because of the manner in which space is being
distributed, shaped and rearranged. Environmental politics is a major constituent in this dynamics. Cities today are undergoing huge transformations and the changes are driven by the dominant development thought which is being practiced in the political and administrative arena.

This paper shows that environmental debate led to spatial transformation along with intersection of various factors in the city. The process of transformation does not remain a neutral one; rather it emerges with embedded violence which is practiced upon those whom the modern urban imagination deems undesirable. These undesired elements can be both, groups of people as well as activities, whatever tarnishes the desires urban image. As in the case discussed in this paper, the drive for transformation can come wrapped in other urban issues, which in this case was environmentalism.

It is not denied that good environment is an essential aspect of quality urban life. However, what needs attention is how particular notions of these issues are getting constructed in a biased manner which violates the rights of vulnerable sections and dispossesses them of the opportunities to make sustainable living and be a part of the urban landscape. Environmental politics, thus has become a critical arena of enquiry to study violence and dispossession in urban space.

**Bibliography**


