

Redevelopment and Its Context-Specific Concerns

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Abstract

Redevelopment has replaced the word “development” in popular discourse on Indian Cities. Our cities are being transformed through this process. When we examine redevelopment from various perspectives, one notices paradoxes and conflicts. This makes it even more important to see redevelopment from these varied viewpoints so that the approach to redevelopment is not simplistic and short-sighted. The context itself needs introspection as it changes and is time, space and culture-bound. “Context” in the case of redevelopment is seen through two lenses. One is of the “Site” and is its surroundings, physical and social. The other being “Redevelopment” itself and the possibilities it holds. The paper starts with a broader theoretical discussion on “Redevelopment” and its “context”. From there, it narrows down to the redevelopment of General Pool Residential Accommodation (GPRA), New Delhi and its various contextual potentials. One of the contexts deliberated is the green network around the site and the responsibility of increasing green cover and biodiversity for the city. Such case scenarios and many others conclude that a deliberation on the context opens up multiple possibilities that can make the exercise of redevelopment sensitive and fruitful, not only for the site but also for the city.

Keywords: Context, GPRA, green networks, redevelopment, urban connections

INTRODUCTION

Redevelopment is an essential phenomenon in a city’s growth. It channels urban energy in the form of its economy, resources and aspirations. Redevelopment in a city is an opportunity to improve the lives of its citizens. It has an obligation to those who are already living there. When we view redevelopment of a city from a larger urban perspective, we see deeper and transformative opportunities that can help the site and the city. This becomes more crucial when the redevelopment involves a larger urban area or if the land is situated in a key location.

Out of the many ways of looking at redevelopment, there are two extremes: one, that the parcel of land being redeveloped restricts itself to transforming within its plot boundaries. Second, the parcel of land evolves in tandem with the city. No doubt, including the city in the site is exciting and challenging; however, at times, the scale of the redevelopment project may not allow an impact on the larger city. Nevertheless, redevelopment has the potential to be a role model, and the parcel of land can reciprocate and it can complement the city by adding to its assets.

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Received Date: March 27, 2026

Accepted Date: March 31, 2026

Published Date: April 05, 2026

Citation: Abha Sharma, Meenakshi Dhote. Redevelopment and Its Context-Specific Concerns. International Journal of Architecture and Infrastructure Planning. 2026; 12(1): 45–53p.

Context and Redevelopment

Context is the physical and abstract surroundings of an entity. It is the arena in which the entity interacts and exists. To understand context, one deals with many scales and perspectives. Context is time-dependent as it is understood through it (time). It is important to understand the value of the “context”. In its simplest form, context is knowledge. And it becomes available through seeking and sharing. In this respect, it is static. However, when seen from a problem-solving perspective, the context becomes

dynamic. It also becomes dependent on the agent who is seeking it. Making context explicit adds to the shared knowledge (Brezillon,n.d.,pp) [1].

Both the context of redevelopment and the context of the “site of intervention” need attention in this discussion. Redevelopment context is broader in scope. It includes all that is associated with “development”. The narrative of development oscillates between its importance for urban society to its selfishness. Development often fails to protect other species and the natural systems. Further, the discussion may delve into whether the redevelopment of an already functional site is required. Can adaptive reuse or conservative urban surgery be better than redevelopment? Are the agencies responsible for redevelopment fair? Is the process of redevelopment fair? Is there an urban vision behind the redevelopment? Has it been discussed with all the stakeholders? Does it protect the environment and enhance it? Whether the outcome is beneficial to the city or not? Whether it is long-term repercussions, considered, etc.?

Behind all this, there are many concerns such as the city’s image and character. Other concerns include the citizens’ trust in government agencies and their financial partners, and trust in urban experts. This also sheds light on collective fears and apprehensions. It raises concerns about urban and social identity and its representation. In it are embedded concerns of the time such as whether it is a feminist approach or a patriarchal outlook in planning and design. Another concern is the ambition and assertion of the economic and market forces of the city in shaping the redevelopment for their own gain.

In the mandatory Environmental Impact Assessment (EIA), the effect of the redevelopment proposal on the surroundings is tabulated. And often it is projected that the site has no bearing on the surroundings in terms of the parameters that are listed. This is a passive approach. It is a static way of looking at the site surroundings. The surroundings or the context come alive only when the redevelopment site agrees to integrate it in its vision and design.

This context can be seen from the perspective of time and stakeholders. Among the stakeholders, the emergent issues are of the urban economy, of community expectations and of policy experts and resource management.

“Context” of a Site

To do this, a deeper introspection of the city’s pressing needs is required. One can understand the context of the site; one understands the physical immediacy of its location. These are physical linkages or connections such as roads and pedestrian routes. Supporting urban functions are also infrastructural contexts such as bus stops, metro Stations, local shopping centers, eateries, etc. and complementing urban services, water supply, drainage.

If the “context of the site” is to be examined from outside of its physical definition, its social ties become important. The associations and expectations of the social classes living in and around the site become important. These may sound poetic and unachievable, but even a small green public space on the site periphery can bring relief to passersby, especially if they are walking on the city roads. Not so long ago, residential communities took pride in keeping water pitchers for the passersby. These may be micro-level, private endeavors. Such urban initiatives bring a human perspective to otherwise hostile gated residential communities.

Cities consume 60 per cent of the world’s resources and release 70% of GHG (GI-REC,n.d) and occupy a land of only 2–3% of earth’s area (Fang et al., 2016) [2].

In times of global climate change and severe pollution, the responsibility of addressing it lies with the city. Whether redevelopment ignores the seriousness of these issues or works on them becomes crucial.

Redevelopment can enable innovative solutions that encourage lifestyle changes and allow radical transformations in addressing severe environmental degradation. Since Urban green ecosystems are

responsible for mitigating ecological degradation, Redevelopment can take a stand to address the urban ecology that it disrupts. It can make use of possibilities that intensify green and can enhance biodiversity instead of losing it.

Economics of Urban Redevelopment work differently. In redevelopment, it is easy for the policy makers to focus attention on the expectations of the developers, which are based on the demands of the market. As the process is often high in capital demand. There is a tussle between the experts' recommendations and the economic interests.

The extremities of this spectrum are interesting and worth deliberating upon. When marginal transformation happens, it can be contested whether it is of use to the city or not. Since redevelopment is developing again, something substantial is expected from it that reflects an urban society's endeavor to form a new urban space worthy of its future. The future may expect to de-intensify the repeated urban follies by taking a radical step that may not fall within the standard expectations.

Delhi, a City with Many Pasts

Delhi has a unique distinction of being the greenest metro city in the country with 11.95 sq. kilometers of forest cover. It has a history of being the capitals of 7 great kingdoms from the past, including the British Empire. Today, it is the most important urban center in the north of India where people come for better opportunities.

Delhi has problems of severe pollution, traffic congestion, and social inequity. The redevelopment of housing in Delhi raises many concerns, such as the loss of the green environment and traffic congestion, due to the increased density. Many agencies have been trying to introduce cycling as an alternative to travelling by private car. Many agencies have been spending time and resources to protect the greenery of the city.

Post-independence time in India was influenced by the British legacy, mixed with a spirit of free India. The partition of the country impacted its cities. Delhi doubled in population in the span of ten years, 1941 to 1951 (Economic Survey of India, NCT). The challenge for Delhi was to house the immigrants. Many colonies, such as Lajpat Nagar and Malviya Nagar, were constructed as plotted colonies for refugees. For Government employees, model housing for its many hierarchies sprang up. Kidwai Nagar, Sarojini Nagar, R K Puram and many others were for central Government employees.

From the 1980s, the phenomenon of market forces and migration-induced redevelopment of individual plots has occurred in all the plotted colonies of Delhi. The most affluent of colonies have succumbed to the lucrative option of converting single dwelling plots into multi-family apartments. shared ownership to individual. Most of Delhi's bungalow typology, single ownership is now builder floor apartment, Density of these areas has increased three times by this transformation.

Group housing in Delhi has been built by many agencies such as CPWD, DDA, Cooperatives, and SFS schemes. These have served as homes for many in the past 30 to 40 years. Some of these housings are in dilapidated condition today. These have not been maintained, and over time have become obsolete in terms of their internal layout and the low site density. There has been a demand by many urban experts for densifying the low-density sprawl, which is now the prime land of the city. However, for lovers of urban ecology, these sprawls are precious as they have biodiversity of trees, ground cover, shrubs and at times wilderness.

Delhi and the Context of Redevelopment

The earlier examples of redevelopment have been sporadic, like DIZ redevelopment and Gol Market redevelopment. In the recent past, more ambitious projects have come up such as Bharat Mandapam and Kartavya Path. The redevelopment of Government Pool Residential Accommodation (GPRA) is another massive-scale venture proposed by National Building Construction Corporation Ltd., NBCC, a

govt. agency that has donned a new role as a facilitator. NBCC sees redevelopment as an opportunity to release underutilized urban land parcels. It believes that the old built stock has not kept pace with the city's potential. Redevelopment will increase its economic potential. NBCC and many others are of the opinion that the redevelopment of GPRA would provide an improved lifestyle for government employees with dedicated car parks and mowed lawns. Lifts with high-rise blocks are indicators of an enhanced lifestyle for many. This line of thinking has been challenged by many.

Most of the Redevelopment in Delhi is led by the policies of the central government. One of the important aspects of this redevelopment has been its scale, as in one go, 207 hectares and eventually 569 hectares of land, approximately the size of the historic city of Jaipur, will be transformed within the megacity of Delhi.

Vast acres of Delhi's land have been through demolition, excavation, and construction. This requires huge funding that has been enabled by the "Public-Private Partnership" (PPP) model and by NBCC's new role as the redevelopment agency of the central Govt. (NBCC, 2023) [3].

In 1991, with the advent of economic liberalization, the Public-Private partnership (PPP) enabled growth in the country that had not been seen before. Although initially PPP model was used for power generation, it later expanded to development projects and infrastructure building. PPP model has now facilitated the redevelopment scale that we see in Indian cities. A significant role in this is played by the central, state, and municipal governments.

New Delhi, beyond Lutyen's Delhi, was built post-independence. Earlier, in typical government accommodation, the built-up area was smaller by today's standards, but open green space was essential. Most of these houses were G+1, with the ground floor getting a private lawn in the front and sometimes in the rear, too. In GPRA colonies, the green areas are assets of biodiversity as the residents have been growing their favorite plants and trees, at times, from their native areas. Being low-density colonies, these areas have many green pockets with mature trees on the periphery.

Redevelopment of GPRA Colonies

GPRA colonies are the employee housing for the Central Government. In Delhi, most of it occupies areas in the south, beyond the British-built Capital. These colonies are bound by the inner ring road in the South of Delhi. Planned in 1962, the inner ring road is the most important artery of Delhi. It encircles the periphery of the inhabited urban Delhi of the 1960s. In the second phase of redevelopment, around five more colonies within the area bound by the inner and outer ring roads would be targeted (Figure 1).

Over the years, many landmark urban functions have emerged around this area such as the AIIMS hospital, Safdarjung Hospital, Sarojini Nagar Market, Dilli Haat, South Extension Market, and Bhikaji Kama District Centre. Other important infrastructure facilities, such as schools, parks, and neighborhood shopping centers, have all made the stretch from Dhaua Kuan to Vinoba Puri an important spine.

As per data given by DUAC, in the first phase of redevelopment, the density of existing colonies is on average 80 Dus per Hectare and would increase to 145 Dus/hectare. This would be an increase of 83 per cent. In the second phase, it is proposed to increase by around 24 per cent. In the first phase of redevelopment, around 6831 trees have been allowed to be cut (DUAC, 2020) [4]. In the beginning, with the first colony being redeveloped, a court case was filed against the Government of India regarding the ongoing redevelopment. In the court case, the objections raised were on the proposed high-density, felling of a huge number of trees, and increased volume of traffic impacting the inner ring road, the city's arterial roads (TOI).

During this time, the entire city of Delhi was charged with concern, the most crucial was the felling of trees and the loss of urban ecosystems. The discussions ranged from the need and mode of redevelopment to the non-inclusiveness of the since the morphological context with its spatial and visual dimensions was largely superceded.

COMPLETION OF UER 2 CONNECTING NH-1, NH-2, NH-8, NH-10

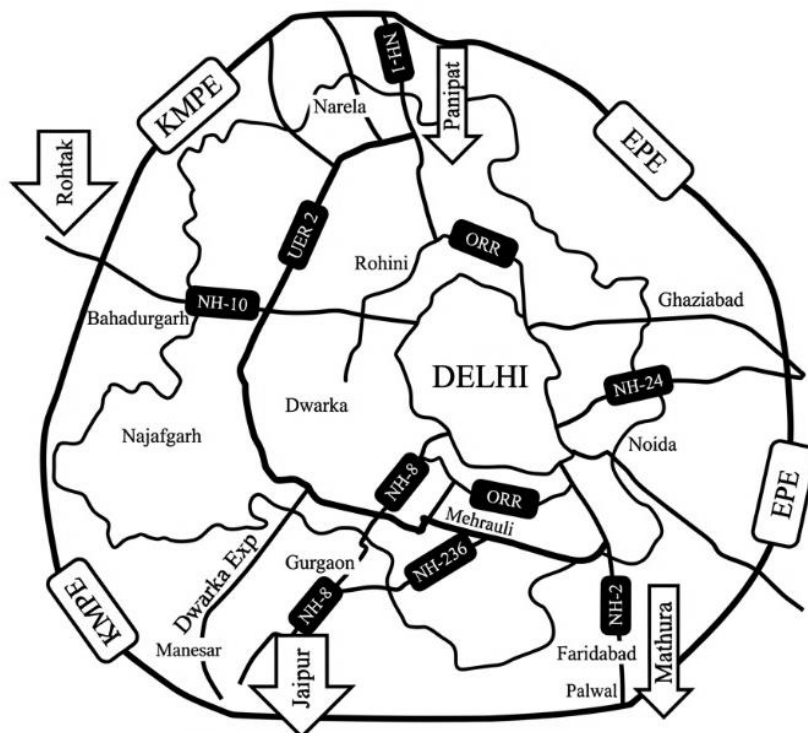


Figure 1. New Delhi and the road network.
Source: NIUA, 2023.

Ecological Context: Understanding and Integration of Natural Ecosystems

Development is always detrimental to the local environment. The existing natural ecosystems are always removed or compromised by the development works (Singh, 2019; Shochat et al., 2006) [5, 6]. Ian McHarg, in his seminal work, “Design with Nature,” emphasized the importance of integrating natural ecosystems into city design. The thriving of birds and animals in the urban environment can be ensured by integrating urban ecosystems, as these provide essential ecosystem services. Clean water, Clean air, and rich soil can support human wellbeing and that of other species too.

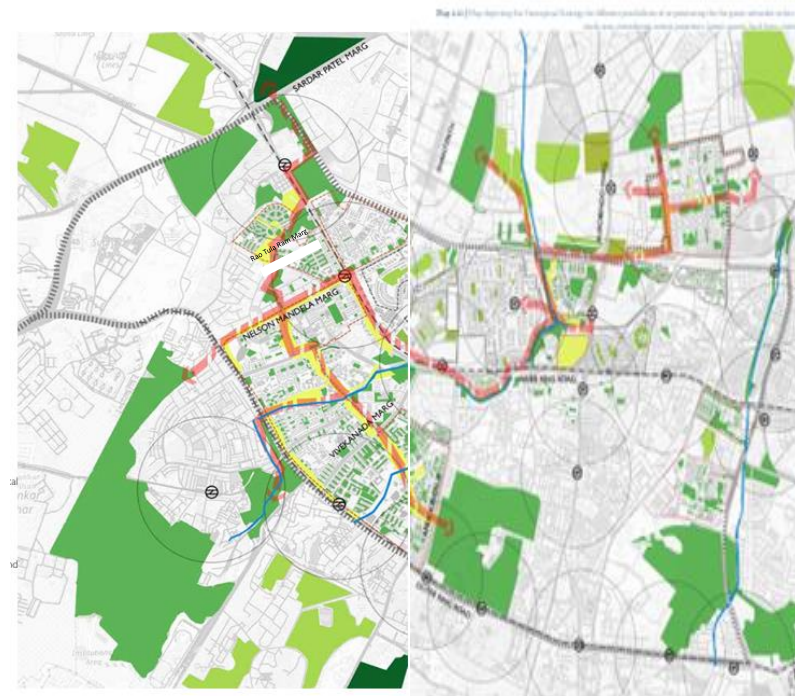
Biophilia, a natural tendency of human beings to feel positive in nature, has been proven by many.

In existing colonies, there is an established ecosystem that has been growing in parks, roadsides and in between the gaps of buildings. Some of it are intentional, and some are unintentional. In Indian cities, the Municipal Corporation maintains its parks and green spaces. In housing colonies, Residents Welfare Associations (RWA) and residents plant trees and care for them. In Delhi, housing built in the 1970s has a rich ecosystem and biodiversity. This urban ecosystem attracts birds, squirrels, rodents, insects and many other living beings. Redevelopment often ignores this. A tree count is easier and is a part of the Environmental Impact Assessment (EIA) process. But the other ecosystem of small plants, shrubs and wilderness goes unnoticed. In newer colonies, the designed landscape becomes static with rigid layouts and strict zoning, unlike the dynamic landscape that proliferates the older colonies.

Green Context: Enhancing the City Green

Because of their low density, GPA colonies have been a major source of Delhi’s green cover. However, the process of redevelopment and its outcome would change the present configuration of green. New configuration would take time to reach maturity, leading to a loss of green for at least 20 years.

Redevelopment of the scale that is going to take place in the coming years is indeed a grand opportunity for the city. This rebuilding of the city must be seen from not just individual housing site levels, but overall city level. The DUAC report on “strategies of redevelopment” proposes a conceptual strategy of regeneration of the green network. The strategy shows land carved out from these colonies to form green linkages spread across the city’s forests, parks and protected green areas, as shown in Figure 2.



Legend

- Regional Park
- City Park, District Park, Community Park
- Green Within Historical Monuments
- Private Green
- Proposed Green
- Proposed Ecological and Pedestrian Network
- Nullah

Source: Green Zones as Per MPD 2021

Figure 2. Context of city green: Linking by green corridors.
Source: DUAC, 2020.

In this illustration, the Greens have been detailed as 1. Regional Park, 2. City Park, District Park, Community Park, 3. Green with Historical Monument 4. Private Green and 5. Proposed Green.

The pink line or the proposed ecological and pedestrian network extends from Green Ridge Forest near Dhaula Kuan along Sardar Patel Marg (West of Delhi) to Lodhi Gardens and Golf Club Private Greens. In the North, it starts linking Safdarjung airport to the District Park behind Vasant Vihar. The ecological corridor sits within the southern Ridge Bowl.

These corridors when implemented, can become urban animal corridors for birds and insects, and for other wildlife such as reptiles, squirrels, mongoose, etc. In the case of Delhi, the protected forests and greens could be linked to allow the movement of fauna. Redevelopment, therefore, is an opportunity for humans to respond ethically to other urban species. The redevelopment project around this area, when seen as one giant exercise, could give better green, better links and networks as suggested by the DUAC report on Strategies of Redevelopment. But as of now the redevelopment has been piecemeal and is restricted to individual housing level.

Pedestrian Context: Pedestrian Connections and Gated Communities

As per the Deccan Herald, September 2023 report, Delhi records an average of 1–2 pedestrian deaths every day in road accidents. And 23% of road deaths are of pedestrians (Pandey, 2023) [7]. If roads are not safe for pedestrians, then sustainable modes of transport are not working well. To have a safe pedestrian network, the city needs routes connecting destinations, integrated with green, shaded areas.

In pedestrianizing the city, the planning must start from understanding the perspective of a walker, as there are subtler commuter behaviors that need to be addressed to encourage walking (Jha, 2017) [8].

Though the distances in the city are long, with detailed pedestrian networks and pause points, a viable mode of commuting could be designed. Safe and shaded paths can make journeys on foot and by cycle safe and comfortable.

Instead of creating barriers, redevelopment is an opportunity to allow citizens to experience every part of the city while walking through it. If the new redeveloped colonies create barriers and private fortified enclaves to separate people from each other, the goal of the city is lost. It leaves the walker unwanted. It is not that the security of residents, children or the elderly should be compromised, but the city needs to open up and be more friendly to its citizens.

If new redevelopment restricts access by bordering fences, walls, and guarded gates, and further, the gated community syndrome has been given sanction by newly redeveloped colonies as they are exclusive, with guards monitoring the entrances, and the city is full of fortified enclaves.

Commuting Context: Bicycle Network and its Continuity

Centre for Science and Environment (CSE) has reported that the worst accident hotspots are flyovers and junctions. It further added that to make the vehicular traffic move faster, the rights of pedestrians, cyclists and NMVs are being compromised (CSE, 2014) [9].

Delhi, with its severe pollution problem, cannot ignore the sustainable mode of transport. Dedicated and continuous bicycle lanes are what the city needs, but their implementation seems far-fetched.

The first city-level Bicycle map for Delhi was proposed in 1988. It is known as BMP. Dedicated bicycle corridors and non-motorized vehicles (NMT) were proposed to be encouraged. But this remained on paper. In 2008, IIT Delhi, under the “Transportation Research and Injury Prevention Program” (TRIPP), proposed a Cycling Master Plan. This, too, was largely ignored by the implementing agencies. Delhi Development Authority (DDA) has promoted best practices under “Unified Traffic and Transportation Infrastructure (Planning & Engineering) Centre” (UTTIPEC), to accommodate cycle tracks and NMV, which again is not followed, as there is a gap between the recommendation and actual implementation.

Redevelopment parcels could carve out shorter pedestrian and cycle connections, thereby providing faster and safer bicycle routes. Just as in DUAC’s conceptual proposal of integrating green, many green areas are carved out from within the large parcels of land being redeveloped. These could accommodate cycle routes as well.

Redevelopment at a massive scale is, therefore, an opportunity for the city to manifest what it has wanted to be.

Connectivity Context: Road Network

Road networks of Delhi have been planned to improve connectivity. Addressing congestion and modern-day needs related to connections is an area of research for many institutions. It is agreed that Delhi needs to have fewer polluting traffic modes and more sustainable modes of commuting. However, the redevelopment policies have encouraged the use of cars by building double basements for car parks. Owning a car was first a status symbol, and now it has become a necessity. Policies on commuting want to restrict car use, but policies on GPRAs redevelopment provide for more car parking spaces. These are contradictory policies.

Our cities must be walkable and cyclable. When the first redevelopment colony was under construction, there were large-scale protests by the citizens. A court case was filed in the high court, which was keenly watched by everyone. One of the contentions was that the redevelopment of the scale that one could visualise would lead to increased traffic on the already saturated roads around the area. NBCC had reported on the impact of redevelopment on surrounding roads. NBCC had presumed that 60% of the population would be using public transport mode, which is not the case (Tiwari, 2018) [10].

This raises concerns about unrealistic projections in a bid to hasten the redevelopment projects. For Kidwai Nagar Redevelopment, Traffic Impact Assessment report by Transportation Research and Injury Prevention Programme (TRIPP), states that *using the census modal split, 17500 person-trips will be more than the estimated trips by NBCC* (Tiwari et al., 2018) [10].

The Ring Road on which Kidwai Nagar is situated will have many more redevelopment projects. The city will have to deal with a higher number of vehicles with the continued state of redevelopment approach.

Social Network

In redevelopment, typically, the biggest threat is of displacement and gentrification as upgraded areas generate economic gains through the sale of assets (Shmaryahu, 2022) [11]. In the case of GPRAs, this is not the case as the accommodation belongs to the government, and the residents have periodic transfers, thereby obliterating the complexities of displacement. However, there are two socio-cultural dependencies that the sites have. One is the schools, the markets, parks, and other networks that grew in these areas that the surrounding community uses. The other is the rigid hierarchy that the GPRAs employee structure has. There are 8 types of residential accommodation with different plinth areas and other facilities (CPWD, 2012) [12]. And every housing project must accommodate some of these eight hierarchies. The rest of Delhi forms the simple norm of a BHK, which is Bedroom, Hall and Kitchen. One BHK to 3 BHK accommodations are available across Delhi. It has become the norm across the country.

If the residential areas are not segregated based on income type and spaces allow all classes to mingle, we may end up covering a great distance in social equity. In our city, there are two ways of creating social groupings. One is based on location, and the other is based on the size of the residential unit.

Time Context

City policies are made and modified over time. These are devised by city authorities to attend to the prevalent expectations of the city. The city's institutions and experts steer the future of the city through their knowledge, ambitions and vision. The city is a complex entity; it carries many contradictions within it. In redevelopment, the contradiction could be generating capital to invest in mega projects or taking a low-key approach to development that keeps a rejuvenating urban environment as a priority; both could be possible trajectories. However, the second is a challenging approach but is the need of the hour.

The economics of the time are oriented towards treating each asset as a commodity, a capital-generating entity. However, each entity has other values that, if integrated, can be more rewarding than just capital gains.

We live in the times of climate change. We also live in the times of unprecedented urbanisation. Urbanisation and climate change are linked in many ways. Urban lifestyle is responsible for the degradation of Earth's resources, the extinction of many species and the depletion of the ozone layer.

Urban life, though great for bringing out human potential, is a fractured life, almost a bipolar existence, as both the migration-induced urbanisation and climate change are being addressed as two separate arenas. It is a folly to assume that both can be addressed without taking radical measures. This would start with questioning the idea of the “city” itself. All the actions that we take, eat up precious resources. From building or rebuilding the city to commuting. Our food and consumption are all rooted in the exploitation of Earth’s resources. Redevelopment can bring in a radical transformation that addresses climate change.

CONCLUSIONS

Redevelopment could become synonymous with “reconsidering development”. Not addressing the context of the times that we live in, can turn out to be our biggest mistake. A redevelopment site can become an asset to the city if it reciprocate what city has wanted to be by examining its locational context and the need of the city. This way, redevelopment can enrich both the site and the city.

REFERENCES

1. Brézillon P. Modeling and using context: Past, present and future (Doctoral dissertation, LIP6).
2. Fang C, Liu H, Wang S. The coupling curve between urbanization and the eco-environment: China’s urban agglomeration as a case study. *Ecol Indic.* 2021;130:108107. doi: [10.1016/j.ecolind.2021.108107](https://doi.org/10.1016/j.ecolind.2021.108107).
3. NBCC (India) Limited. NBCC official website. [cited 2026 Mar 27]. Available from: <https://nbccindia.in/index>.
4. Delhi Urban Arts Commission (DUAC). Strategies of redevelopment. New Delhi: DUAC; 2020.
5. Singh KK. Probing the context of green spaces in urban planning framework in India. 2019;39.
6. Shochat E, Warren PS, Faeth SH. Future directions in urban ecology. *Trends Ecol Evol.* 2006;21. doi: [10.1016/j.tree.2006.09.007](https://doi.org/10.1016/j.tree.2006.09.007).
7. Pandey K. Road traffic deaths declined overall, but those of cyclists and pedestrians rose in last decade: WHO report. *Down To Earth.* 2023 [cited 2026 Mar 31]. Available from: <https://www.downtoearth.org.in/health/road-traffic-deaths-declined-overall-but-those-of-cyclists-and-pedestrians-rose-in-last-decade-who-report-93421>.
8. Jha A, Tiwari G, Mohan D, Mukherjee S, Banerjee S. Analysis of pedestrian movement on Delhi roads by using naturalistic observation techniques. *Transp Res Rec.* 2017;2634:95–100. doi: [10.3141/2634-14](https://doi.org/10.3141/2634-14).
9. Rohilla SK, Jain S, Matto M. Green infrastructure: A practitioner’s guide. New Delhi: Centre for Science and Environment; 2017 Jan 9:1–11.
10. Tiwari G. The Kidwai Nagar redevelopment project: Traffic impact assessment. New Delhi: Transportation Research and Injury Prevention Centre; 2018.
11. Shmaryahu-Yeshurun Y. Rethorizing state-led gentrification and minority displacement in the Global South-East. *Cities.* 2022;130:103881. doi: [10.1016/j.cities.2022.103881](https://doi.org/10.1016/j.cities.2022.103881).
12. Central Public Works Department (CPWD). Compendium for central government housing. New Delhi: CPWD; 2012.