

Factors Affecting the Development of a Counter Magnet City: A Case Example of Indian City

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Abstract - The population in urban areas swells due to the migration of public from diverse areas in pursuit of employment, leading to overcrowding. Urbanization creates pressure on infrastructure facilities, widening disparity amongst the people. Hence, to stimulate the process and to control the urban growth of a city, counter magnet cities were introduced, leading to a balanced regional development of the surrounding areas. The paper discusses the different approaches adopted to control urbanization and limit the disparities caused due to the negative externalities of migration, focusing on the strategy of counter magnet cities for a balanced regional progress. A detailed case study of Gwalior city, which was expected to be a counter magnet city to the National Capital Region (NCR), is undertaken to identify the important role of various factors pertaining to its development as a counter magnet city. The paper examines how factors like proximity and connectivity to the NCR couldn't contribute in making Gwalior as an independent growth centre. It explores other counter magnet regions' dynamics and further investigates the major challenges that delayed the emergence of Gwalior as a functional counter magnet to the NCR, suggesting measures to make Gwalior capable of undertaking the assigned role of a counter magnet effectively.

activities and a balanced growth to boost the regional economy.

The counter magnet city acts as a substitute in reducing the existing augmented pressure on the metropolitan area. It creates an opening within the city with superior social and physical infrastructure and also a regional linkage to other areas. There is a need to think about planning counter magnets areas, secondary cities, satellite cities, etc. for redistributing population, reducing the influx, controlling migration and bringing a sustainable and a balanced development of the region as a whole.

Keeping these advantages in the forefront, the counter magnet acts as an interceptor of migratory flows which help in reducing the migration from the surroundings on the core city while the regional growth centers offer conveniences and services to the local people and boost the regional economy. Therefore, counter magnet is a growth center which controls migration, achieving a balanced platter of urbanization.

Key Words: Urbanization, Counter Magnet, Region Dynamics, Balanced Development

1. INTRODUCTION

We are all aware that population in urban areas is escalating at an alarming rate. As per Census 2011, 377.1 million of the populace lives in urban areas out of the total population of 1210.2 million in India. As per the figures of the World Bank, 31.16% of the population residing in urban areas has increased to 34%. Metropolitan city or region is a dynamic entity with a dominating character, being the centre of industrial development, trade and commerce and many other tertiary services. As the region flourishes, disparities widen, giving rise to the associated problems of overpopulation, intensification in the demand of infrastructure facilities and amenities. Hence, the counter magnet city came into existence to diminish the weight on infrastructure, giving a stimulus to devolution of economic

2. URBAN GROWTH MANAGEMENT STRATEGIES



Fig -1: Urban Growth Management Strategies for Cities

Urban growth is indicated by augmented urban area population which leads to urbanisation of that area or region. Because of migration of people from rural to urban areas or urban to urban areas in search of employment, there is advancement of such an area, which is directly related to the economic development.

To manage urban growth, there are various strategies that can be adopted. These strategies can be broadly categorised as strategies targeting internally within the city limits or adjoining areas and external strategies that seek solution in development of areas or centres beyond the city limits. Since there has been an excessive pressure on the already overexploited amenities and services, the first and foremost strategy is to make provision for them. Capacity augmentation followed by revision of policies to identify the underutilised potential is undertaken to empower the city for serving the expanding population.

The internally acting strategy upgrades the already existing infrastructure, optimises their utility & capacity and revises the policies and city limits. These include Brownfield development, Infill development, Redevelopment and city extension. These demand revision of policies, FSI guidelines and vertical development which intend to enhance the development of internal strategies.

The city extension strategy relates to a planned development of the existing that helps in absorbing the urban growth, provides new opportunities and removes the negative externalities of urbanization. While the city extends, it starts losing its buffer zone becoming an agglomeration of cities with numerous problems related to services and facilities. These strategies prove to be inadequate pertaining to the high fundamental potential of a city. It is then when external solutions are sought after. External strategies comprise of developing satellite towns, pole development, counter magnet or new towns.

Since economic development has been a driving force in the process of development, 'employment generation' is the key. Increase in the population base and directing the flow of people to an anticipated area as growth pole are created owing to its potential.

When the first site or growth pole is unable to cater to the needs of its growing population base then follows the 'Strategy to Diversify'. Spatial reorganisation can be undertaken at different levels or hierarchy of distances from the first site i.e. urban area/metropolitan area. With the intent to control migration alternative centres like growth poles, satellite towns, counter magnet cities and new towns are planned. Pole development is expanding a growth pole that will attract people from a highly concentrated zone to a secondary growth pole. This concept is adopted from the Growth Pole Theory by Francis Perroux.

Satellite towns are small or medium sized cities that predate metropolitan suburban expansion and are partially independent of the metro city, economically and socially, which help in absorbing the industrial growth.

In Indian context, it is observed that the strategy to develop secondary growth pole and satellite town deflect the

population initially but fail to provide a long term solution. Due to their proximity to the metropolitan area or the mega city, they induce more immigration. High rate of growth and development in the initial stage reduces the distance from the mega city and further blurs the line.

2.1 Magnet City

The city that attracts or dissuades people, investment, social network and infrastructure can be termed as a magnet city. This perception is extensively prevalent in foreign countries. A powerful magnet will pull people, activities, services, businesses towards it which will in turn result in an overall development of the city with respect to economy and physical and social infrastructure. While some cities can repel or push people away since they lack opportunities and amenities, they lead to shrinkage. Thus, a city can act as a positive or a negative magnet depending on its characteristics.

For a magnet city to be successful, it should focus on creating a city identity which aims at drawing the populace towards it by generating opportunities which will affect the economy and increase the standard of living i.e. quality of life.

3. EVOLUTION OF COUNTER MAGNET CITY

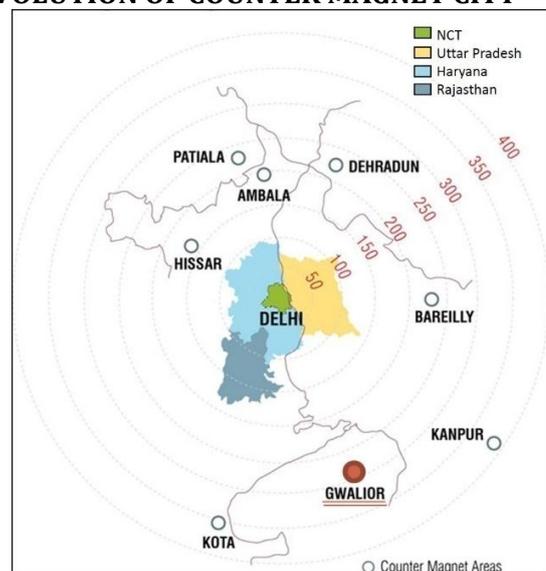


Fig -2: Counter Magnet Cities of India

In India, the concept of counter magnet arose from the evolution of NCR. To ease the pressure of mass migration and disperse the economic activities on Delhi-NCR from the neighbouring states and cities, there was a need of counter magnet. In 1985, National Capital Region Planning Board (NCRPB) Act was formed, which decided formation of counter magnet to control the rapid urbanisation of Delhi and NCR. The purpose was to aid in reducing the pressure and aim towards a balanced regional growth.

In 1985, Counter Magnet Area was envisaged in Regional Plan 2001 in which five cities were identified, based on

different selection criteria such as distance, migration, population, connectivity, infrastructure index, economic development potential, etc. The following urban centers were identified as counter magnet areas in five different states: Hissar in Haryana, Gwalior in Madhya Pradesh, Patiala in Punjab, Kota in Rajasthan and Bareilly in Uttar Pradesh. In 2008, the Regional Plan 2021 was formed in which three more urban centers were added namely Ambala in Haryana, Dehradun in Uttarakhand and Kanpur in Uttar Pradesh.

4. EVOLUTION OF GWALIOR AS COUNTER MAGNET CITY

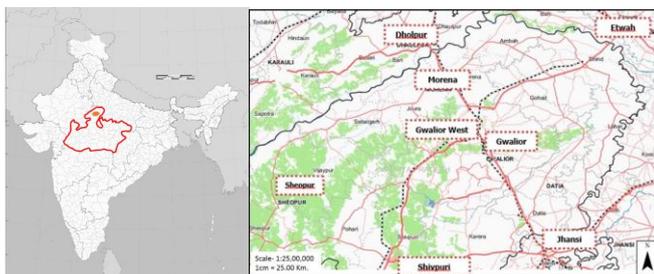


Fig -3: Location of Gwalior and Regional Setting of Gwalior

Gwalior lies in the state of Madhya Pradesh. The Gwalior city covers an area of 289 sq.km. with a total population of 1,069,276 persons as per 2011 census. The population density is 3,700 persons per sq.km. with an average literacy rate of 84.14%.

In, 1985, Gwalior was selected as a counter magnet to Delhi and National Capital Region (NCR) to control migration from less developed areas of Madhya Pradesh. It was selected in the state of Madhya Pradesh because it cleared the parameters of distance from Delhi, ranging from 100-400kms and other criteria of size, status, population growth, work force participation ratio, population density, accessibility, congruence with immigration corridors and proximity to other regions.

Gwalior is situated 363 kms. away from the capital city of India, Delhi and NCR making it capable in terms of locational aspect with connectivity through rail and road networks. It is one of the major urban centers of Madhya Pradesh with its unique regional setting and linkage to other major cities like Agra, Mumbai, Jaipur and also to the nearby regions such as Bhind, Morena, Sheopur, Shivpuri, etc.

It is a historical town with its own identity and urban fabric. It also flourished as a center of trade and commerce which made it capable in terms of economy. The city consisted of numerous manufacturing industries related to textile, paint, ceramics, chemicals, leather, carpets and foods processing that provide a large scope for employment opportunities and work force participation. The city was also an educational hub with several colleges providing prospects in diversified

fields such as agriculture, physical education, management, tourism, medical, science and technology. Hence, Gwalior had the inbuilt potential to be developed as counter magnet. In 1922, Gwalior West area was selected for the development of counter magnet city. A Special Area Development Authority (+) was formed to start the project of counter magnet city.

4.1 Selection of Gwalior West for Counter Magnet

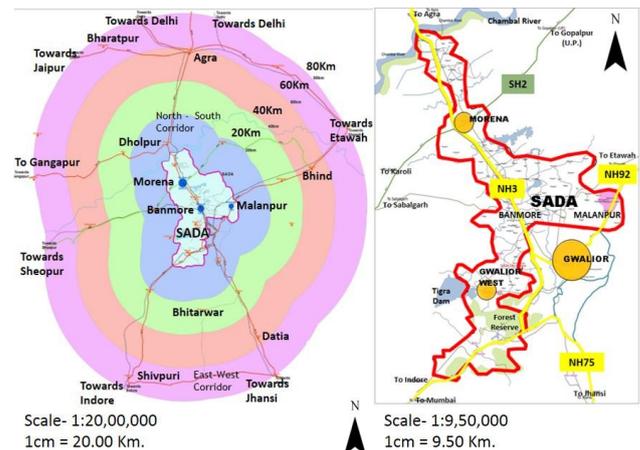


Fig -4: Location of Gwalior West and Map of Special Area Development Authority (SADA)

A Special Area Development Authority (SADA) was formed to start the project of counter magnet city. Initially the area of SADA was 300 sq. kms. , which has increased to 752.77 sq.kms. as per 2019. It includes Gwalior, Morena, Banmore, Malanpur and other rural areas up till Chambal river with a population of 4,10,567 and 118 villages as per Census 2011.

The area earmarked for development of SADA is located on the West side of the Parent City (Gwalior). It is contiguous to the existing settlement of Lashkar, which is a major Central Business District of Gwalior. Because of its close proximity to Lashkar, the site has a potential for integration with the city of Gwalior. Another important feature is the presence of large water reservoirs like Tighra, Kotwal, Pillowa and Khiraoli reservoirs. Tighra reservoir can provide sufficient water for the present population of SADA. This reservoir also acts as a tourism spot with beautiful views and boating activity.

The area to the south west and the west, upto the Tighra reservoir, is a mixture of scrub and forest lands. It is undulating in topography. The area is connected to Agra-Bombay National Highway (NH3) which was proposed to pass through the area of SADA. But due to the forest reserve which consists of the extinct species, Sonchirayi, this could not happen and hence its connectivity was changed. The location is well connected to Bhind via NH 92 and to Jhansi via NH 75. State Highway 2 from Sheopur and Bhind are also connected to the area and due to the influence of Golden quadrilateral, a link road connects Morena and Malanpur. Malanpur and Banmore are industrial estates.

5. REGION DYNAMICS

Pune has acted as a counter magnet to Mumbai. High standard of living and urbanization in Mumbai has drawn people towards Pune in search of opportunities and lower living cost. Pune has flourished as a counter magnet city with a distance of 148.40 kms. from Mumbai because of the construction of Mumbai-Pune highway. This has reduced the travel time for people with easy accessibility. There are numerous trains and flights that provide ample connectivity to Pune city. In case of Gwalior, it is well connected to the surrounding regions and other cities but lacks the proper facilities of an Airport. The Gwalior Airport became functional in 2010 after 18 years of the proposal of counter magnet, which didn't provide the desired accessibility from the surrounding areas and metropolitan region. Hence, there was lack of easy accessibility with more travel time which created a barrier in the development of Gwalior as counter magnet.

In the state of Karnataka, Bangaluru is known as information technology hub in addition to education and research center. The city transformed into a magnet city, attracting millions of people for employment. Industries can flourish in a region with easy accessibility and less commuting time. Air connectivity is also one major aspect in this area. Keeping the technological and economic development in focus, an airport was constructed to solve the time issues which provides raw material for the functioning of the industries and global connectivity for trade and commerce. But Gwalior could not thrive as a counter magnet due to lack of industries. The industries that existed were shut down because of the financial crisis and Gwalior declined in terms of economy. The policies and guidelines were not concentrated upon to bring further investment and opportunities in the industrial sector. Lack of proper airport facilities also resulted in the deterioration of industries for global access. This led to the decline of Gwalior in terms of new opportunities and jobs.

The first planned city Chandigarh which is 260 kms. away from Delhi and NCR, was developed due to political reasons as an identity of an independent and a modernized India. The political willpower led to the concrete growth of the city. The site was selected because of its natural setting and was designed accordingly. Hence, political influence and natural factors play a vital role in the development of any region. In case of Gwalior, selection of the site was not assessed properly as there were environmental issues barricading its progress and also the growth of the city was shifted away from the selected site in opposite direction because of political reasons.

The development of a region occurs due to the availability of natural resources, for instance Raipur in Chhattisgarh. Raipur has boomed as a capital city of Chhattisgarh after its separation from Madhya Pradesh. The area is surrounded

with forest, river bodies, minerals and agricultural lands which provide a boost in the investment, leading to the city's development. The city is emerging as an industrial town by utilising the natural resources available in the region. This helps in attracting the investors towards the city which in turn creates employment opportunities leading to economic growth of the area. Therefore, natural resources act as a positive pulling magnet for the investment and financial asset. Gwalior is encircled with mountains which provide abundant stone and soil as natural resources and Chambal river which provides sand. But lack of proper policies and guidelines to convert these assets into investment, has led to the negative development in terms of industries and economic growth of the city as counter magnet.

Smaller cities are acting as magnets for the migrants for example Surat city in Gujarat state serves as a counter magnet to Mumbai with ample job opportunities and lower living standards. These cities act as counter magnet to the metropolis driving the migrants towards them with rapid growth and higher demand of infrastructure which also leads to its saturation over time.

6. APPROACH FOR GWALIOR AS COUNTER MAGNET

The vision to develop Gwalior as a counter magnet can be materialised with amendments in the policies and strategies focusing on economic growth of the city. The policies and guidelines should be framed by providing incentives to the industrial setup and reviving the existing ones for enhancing the investment. The city should concentrate on the linkages to the metropolitan region through accelerated airport facilities which will reduce the travel time and ease the connectivity. The strategies should emphasis on the inbuilt potential, natural factors and financial aspects to move forward in the direction of converting Gwalior as a successful counter magnet to Delhi and NCR.

7. CONCLUSION

To control the urban growth of city, the concept of counter magnet was a progressive idea if it was implemented in the right spirit, keeping in mind the original identity and growth pattern of the city. Gwalior could have been a successful project if the connectivity, setting of industries for economic growth, investment and selection of site would have been managed properly. These factors have somehow or the other affected the development of Gwalior as counter magnet. The major focus should have been on the economic growth of the region with more job opportunities, facilities and linkage. Gwalior has the potential in terms of its regional setting with abundance of natural resources, which could help in creating numerous opportunities. The Gwalior West has its own potential in terms of environmental factors and also regional connection to major cities such as Agra and Mumbai. It even possesses the capability to extend as an economic center due

to its close proximity to the stone park. If it is reviewed with an optimistic approach, it might flourish.

On a broader aspect, the factors that should be considered while developing a counter magnet can be classified as:

7.1 Inbuilt Potential

Self-potential for development- The town should be self-sufficient in terms of connectivity, infrastructure, growth pole and economic stability. As in case of Gwalior, the site selected for development lacks the potential in terms of a good transport system which creates a barrier in the movement of people from one place to another. On the other hand, the area does not have proper employment opportunities which tend to attract population towards the place. The development takes place when there is ample amount of population, but as people do not shift, it leads to improper development of the infrastructure facilities. Similarly, in case of Gwalior, the infrastructure development could not flourish due to lack of population. Hence, the site should be selected based on a proper social impact assessment and its own potential.

7.2 Natural Factors

Natural barriers and environmental factors play a vital role in the development of an area. The location affects the progress and expansion of the region. According to the case study of Gwalior as counter magnet, it is clear that location is one of the major elements for the development of counter magnet. The barriers due to natural setting of the site restrain it from its growth. The Special Area Development Authority (SADA) of Gwalior was blocked from three sides due to natural surroundings such as forest reserve, hills and dam which affected the regional connectivity of the area. Hence, environmental factors should also be considered while developing counter magnet. Environmental impact assessment could be done to analyse the progress of development of any specific area.

7.3 Funds and Budgeting

Proper budgeting of the project and allocation of funds play an important part in the success of any project. The smart and efficient use of funds could help in saving the investment. The segregation of funds in a proper manner could help in a productive outcome for the development of counter magnet cities. This case is not of only Gwalior as counter magnet but Kota too faced a similar problem. Hence, the management of funds should be considered beforehand.

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