Land Readjustment as A Technique of Urban Land Management: -A Case of Aya Nagar, New Delhi

Ar. Supriya Kumari, Ajay Kumar, Ravish Kumar

Abstract: Land management reflect the meaning of the nation's assets and this executes the appropriate land policy by means of land organization. Moreover, it in like manner includes not just the standard organization of resources and land, yet in addition a chance to show a long haul system for the future. As respects to this point, land management is an essential action focusing on sustainable land use. Under these conditions, as for appropriate land policy of state, nearby specialists must build up some effective land acquisition methodologies for new developed zones as quickly as time permits in light of the fact that there is a dire requirement for urban land for public purposes, for example, streets, lodging, schools, clinics, parks, markets, and other public facilities as well as their amenities. Land reallocation extremely old which drawing interest in worldwide as a method for accomplishing arranged, impartial and proficient development. Different degrees of progress and degrees of usage have been accounted for just as traps and snags, a portion of the last being basic in as well as experienced by more than one nation alone. This training has been embraced and adjusted by different nations so as to oblige contrasts in both lawful structures and open private connections. This paper will share how to land esteem evaluation joined with property size was utilized as an appropriation driver, together with an all-inclusive and free property valuation device. And reason for selecting the study area because it is an unauthorized colony and the area is needed for readjustment it the locality which is placed with the brownfield as well as a green field. And these fields resolve the problem of an unauthorized colony with the help of Land readjustment.

Keywords: Urban land management, Land readjustment, Land policy, Unauthorized colony

I. INTRODUCTION

Urban land management is a set of measures to achieve the land needed for urban purposes at the right time, location, price and quantum with efficiency and economy. It is the way whereby the sources of land are settled to fairly effect. Urban land management systems ought to incorporate the capability to plan and entire model framework that enhance vehicular movement and the built structure, assets including natural resources and energy [1].

Urban management attempts to bring a new perspective from which to tackle urban problems.

Land can be defined as:

- a natural resources;
- economic resources i.e. a factor of production, labour, money, need base etc.;
- a slate to do physical planning i.e. availability of land, public good;
- an economic value i.e. real estate etc.;

Land reallocation is an urban development strategy utilized for the generation of appropriate urban public spaces and

Revised Manuscript Received October 05, 2019

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infrastructure required by urbanization. In this regard, a public authority assembles, reallocates and controls the transformation of land from rural to urban use in urban-fringe areas according to town planning necessities. However, it can likewise be connected to developed urban areas for the aim of urban renewal in different circumstances [2].

II. LITERATURE STUDY

Land readjustment is a land management instrument by which a public authority assembles and controls the transformation of land from rural to urban use as indicated by town planning necessities. The reallocation must be a reasonable execution for the provision of social value. If the reallocation is conducted with respect to the area method, the value of all the land within the adjustment area is accepted to be equal in this system. However, both when the procedure, the worth of the land does not rise to inside the entire zone because of fluctuating conditions such as access to street, topography, location in the block and so on. Therefore, for a fairer implementation among landowners the choice of land dissemination strategy is significant [2]. Basically, the idea of land rearrangement is expanding land for public use and reduce the size of private land. Thus, the size of individual property is diminishing in the manner of their size however increment of their financial qualities gets change due to additional improvements with the help of zoning. In the interim, newly developed plots are made and higher authorities get that land for public purposes.

India and specifically the province of Gujarat has an extensive history of implementing land readjustment._Land allocation in Gujarat has been effectively used to accomplish a range of objectives – reconstruction and rebuilding the city of Bhuj after it was devastated by a massive earthquake on 26 January 2001; building a 76 km long Ring Road in Ahmedabad 2004; providing infrastructure in new growth areas etc. It is proven thus far quite flexible and versatile and used to address a wide variety of urban challenges. [3]

III. NEED OF THE STUDY

The quickly increasing need for urban land represented a critical risk to influenced zones. Advancement and development of urban area hold up the guarantee of taking social orders to another phase of development. The Government comprehended that the investigation area is at a noteworthy defining moment and is resolved that the development and change of the investigation territories be quick, very much arranged, manageable and impartial. Additionally dedicated to dealing with this development and change by emphatically utilizing business sector components and the energies

of the private areas.

IV. AIM

"To study the Land Readjustment as a technique of urban land management and land use proposal for an unauthorized colony of Aya Nagar, Delhi."

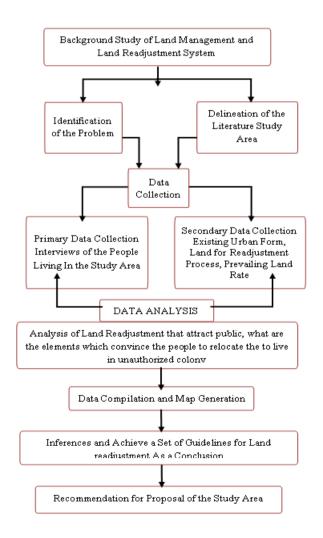
V. **OBJECTIVES**

- To study the concept of Land Readjustment and its approaches in various cities. To analyze the different situation in which Land Readjustment has been applied in the context of India and the impact of development pattern on land management practices and urban planning in the study area.
- To apply the techniques which are suitable/use in the unauthorized colony and improve urban planning to facilitate land reforms and provision of infrastructure development.

VI. SCOPE AND LIMITATIONS

- The term urban land management will only include the concept of Land Readjustment, development and disposal. The study also identifies the main problem areas and presents innovative solutions where such can
- The paper will be limited to the selected study areas.

VII. **METHODOLOGY**



URBAN LAND MANAGEMEN T PRINCIPLES	GENERAL CONCEPTS	LAND RADJUSTMENT PARAMETERS
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Maintain or intensify production/services	Efficiency	Enhance developed land	
(<u>Productivity</u>) - the arrival may stretch out past material yields from agricultural and		Minimize losses	
non-agricultural utilizations to incorporate advantages from defensive and exquisite aims of land use. (FESLM- An international framework)		input and output Ratio	
Decrease the degree of production risk	Reduction of risk &	Structural risk	
(Security) – the executive techniques that advance harmony between land use and induce ecological conditions, lessen the dangers of generation, on the other hand, strategies that destabilize nearby connections increment that hazard. (FESLM- An international framework)	uncertainty	Natural and social vulnerabilities	
Protect the capability of natural resources and	Enhance land capacity	FAR	
prevent mortification of soil and water quality (Protection) – the amount and nature of soil and water assets must be protected in value for future generations.		Built of open ratio (inclusive obligation to the existing community & preservation of the existing community)	
		Degradation	
	Protection of land	Developed land become assessed/ premium land	
		Undeveloped land	
		Degradation in terms of density	
		The Stress of physical infrastructure	
		Pressure on social infrastructure	
	Quality	Pressure due to commercialization	
		Industrialization	
		Excess of paved area(unused paved area)	
		The area under the green area	
Economically feasible (Viability) - the land uses being considered are locally not feasible, the utilization will not endure		Readjusted Land price Minus the cost of development land is more than the existing land price	
Socially allowable (Acceptability) - The	A (. 1. 22)	Participation of land & people	
populations most straightforwardly influenced by social and economic impact are not really	посраонну	Social participation	
equivalent.	Equity	Accessibility	



Figure 1: The Methodology Of The Study

VIII. PARAMETERS OF LAND READJUSTMENT

Land readjustment is the procedure toward dealing with the development and utilization (in settings of urban and rural)

IX. STRATEGIES & PROPOSAL

As an urban land management instrument, land readjustment basically takes spontaneous urban land and reallocates it in a progressively compelling use concerning town planning necessities. However, urbanization issues inevitably happen by fast population spread because of rural-urban migration. Our planning measures for land management technique would be fortifying which is required very much. Assessing various studies of land management measures should be drafted.

- ☐ REMODELLING BURDEN ON URBAN VACANT LANDS: Vacant land needs to be enhanced by upgrading land taxes under the process of development of those lands. Which separated from debilitating people who might want to conjecture the fringe areas development, clearly decrease the stress on the extension of corridor development.
- ☐ Introducing Land Banking System At Various Levels.
- ☐ URBAN MANAGEMENT IN TERMS OF EFFICIENCY: The need for urban management at every level of the development process. The urban management process will maintain the existing and

Table1: Existing and Projected Population

POPULATION PROJECTED FOR 2021-2041				
POPULATION YEAR	POPULATION			
1991	405	EARLIER		
2001	13925	EXISTING POPULATION		
2011	33123	[4]		
2021	61482	EXPECTED		
2031	101841	PROPOSED POPULATION(by		
2041	154200	geometrical progression method) [5]		

(Source: By Author)

Phase-I is proposed with mixed land use in which it is having 15% of social infrastructure facilities, government land already provided in this area by the master plan and it is also having the residential part.

Phase-II is placed in the centre part of all the 3 phase that why it is having a large amount of Public Semi-Public (PSP) facilities & infrastructure facilities in it so that these facilities can serve to both the phase. It is also having more

- proposed services and minimize the losses and enhance development ratio in terms of input and output.
- ☐ ENHANCEMENT AND ADDITION IN EXISTING POLICIES: There is a need to update the existing policies in context to land readjustment techniques so that it can be easily implemented at an unplanned area for its betterment.
- ☐ ADDITION OF NEW PLANNING APPROACH: There is a need to adopt a new planning approach and new modern techniques and enhance housing land supply program for its better utilization in future.
- □ Nationalization Of Land.
- ☐ Government Ownership Of Peripheral Areas.
- ☐ Unique Taxation On The Benefits Received By Plots From The Installation Of Public Services.
- ☐ Local & Zonal Development Plan

A. Proposal

According to the proposal, the whole Aya Nagar i.e. study area is divided into 3 phase according to the proposed population from 2021 to 2041.

As per projected population calculation, the achieved density of 2021, 2031 & 2041 is 116, 193 and 292 people per hectare respectively.

of land assets, and these are utilized for an assortment of purposes which may include organic, agriculture, water asset management

residential part with Regional & City Park and provision of rainwater harvesting of Johar Lake.

Phase-III is having more PSP part i.e. security and distribution facilities with the residential part in it so that a security boundary like the thing is created in the study area. After land readjustment, the returnable land is 65%.

Table2: Proposed Infrastructure Facilities

POPULATION PROJECTED FOR 2041 [6]				
SOCIAL	STANDA	SOCIAL	STANDA	
INFRESTRUC TURE	RD AS/MPD	INFRESTRUC TURE	RD AS/MPD	
PRIMARY SCHOOL	08	MILK & VEGETABLE BOOTH	40	
SR. SECONDARY SCHOOL	04	LPG GODOWN	02	
DISPENSARY	04	MULTIPURPO SE HALL/ LIBRARY	02	



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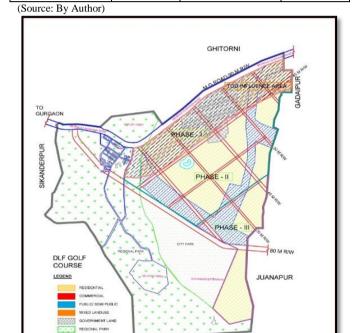
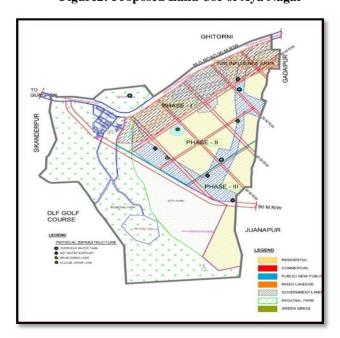


Figure2: Proposed Land Use of Aya Nagar



Retrieval Number: A9347109119/2019©BEIESP DOI: 10.35940/ijeat.A9347.109119

Figure3: Proposed Land Use with an Existing Building Footprint

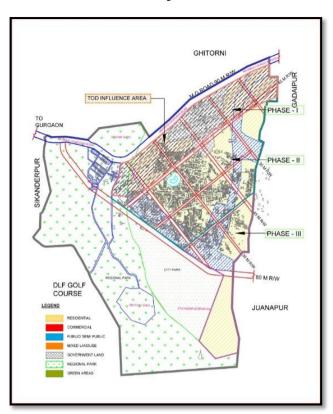


Figure 4: Proposed social infrastructure facilities

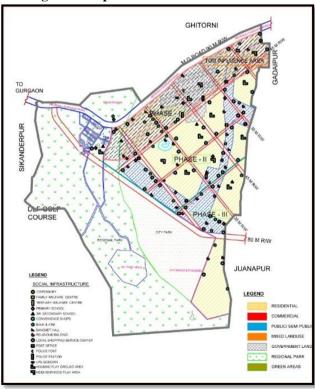


Figure 5: Proposed Physical Infrastructure Facilities.

X. CONCLUSION

Land Readjustment is a viable instrument for assembling land parcels for the social use

and economic use of land. It will also encourage the



equivalent sharing of the advantages and expenses of the venture; and mitigation the budgetary weight for the required framework for all amenities needed for the public.Land readjustment instrument is self-financing in character which imposes no financial burden on government providing facilities and amenities. It has also value and proficiency in the urbanization procedure for allocation of land. This technique has a solution to tackle the issue of haphazard development in urban areas and fulfil the broad aim of this paper.

REFERENCES

- "Delivering Effective Urban Management," in Shanghai Manual A Guide for Sustainable Urban Development in the 21st Century.
- S. Y. KONURSAY, Land readjustment process in Urban Design: Project Management approach.
- S. Ballaney, Supply of Land for Development: Land Readjustment Experience in Gujarat, India.
- c. o. India.
- M. p. f. Delhi-2021.
- g. 2. Ministry of Urban Development, Urban and Regional development plan formulation and implementation.

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