

# Land Pooling Practices in India - A Case Study of Amaravathi and Magarpatta

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**Abstract:-** Land Pooling / Readjustment is one of the Land Assembly or Development Tools and an alternative to Eminent Domain to rein in urban sprawl for sustainable urban development. The Europe has been adapting the policies and practices of Land Pooling since 1600 and widely accepted and applied in Germany late 1800s. In Asia, the Republic Of Korea and Japan were early adopters of LP/R and after the World War-II, it plays a significant role in reconstruction and rehabilitation. In India, the LP/R was first introduced during the Colonial Period as a replica of the German Model of LR through various Town Planning Schemes. After the sweet-smelling success of LP in Amaravati and Magarpatta, the LP/R has emerged as one of the successful promising alternatives for Land Acquisition to secure, assemble, and develop (peri) urban areas sharing benefits to the stakeholders involved in a cost-effective manner.

The study is purely innovative, explorative and diagnostic in nature. The responses, reflections, and reminiscences of land owners in sacrificing their inherited capital asset to construct Capital City, Amaravati, Andhra Pradesh, (400 responses), and Magarpatta Township Development in Pune, Maharashtra (100 responses) are considered as per convenient random sampling for getting analytical insights and drawing inferences. On stated lines, the prior and post implementation weal and woes, the Dynamic Plot Allocation in Amaravati, and Town Development Scheme in Magarpatta, are analytically lensed. The results indicate that the afore cited interventions accolade LP/R as an equitable and inclusive rural development strategy with the priori and full consent and consideration of land owners. In dictum, LP/R is not a panacea for all ills of land development and 'One size does not fit for all', hence, suggested customized innovative hybrid solutions based on context-country specific.

**Key Words:** APCRDA, LP/R, LPS, LR, LRG, ROK, MTDC

## 1. LAND POOLING / READJUSTMENT (LP/R) - AN ADRENALINE PULL AND PUSH

The scientific and stimulating Land Development Tool and Technique (LDT) viz., 'Land Pooling / Readjustment (LP/R)' emerged from the realms of Land Acquisition (LA) as an addendum, an extension, a compelling alternative, and a *raison d'être* in securing land for (peri) urban development. The President of US, George Washington, at first coined the term 'Land Pooling' in 1791 for making up a new capital city Washington D. C. The phrases viz., Plot Re-Constitution and Urban Land Readjustment (Chou and Shen, 1982<sup>1</sup>), or Land Assembly Strategy or Readjustment (Doebele, 1982<sup>2</sup>; Minerbi et al., 1986<sup>3</sup>), or Urban Land Reconsolidation (Archer, 1982<sup>4</sup>) or Land Reparcellation (Kuppers, 1982<sup>5</sup>) or Land Rearrangement or Reordering (Davis, 1976<sup>6</sup>) or Land Acquisition or Resettlement aimed at (re) develop (peri) urban sprawl, urban space, and urban pool of land to accommodate the forecast urban growth ensuring public amenities, infrastructure including roads, transport, and carbon free environment. The global experiences and evinces on LP/R reveal that the 'Legislative Origins of Land Pooling' were traced in 1902 in Germany with the intent of improving the efficiency of farm land. The first Urban Land Readjustment (ULR) was adopted in Japan to reconstruct the Cities of Tokyo and Yokohama in 1923 (Great Kanto Earthquake). In Nepal, the concept of LP was at first adapted in 1976 to build a road in Bokhara and South Korea applied the techniques of LRA from 1934 until 1984 for 397 projects spanned in a total area of 43,580 ha to cope with the problems created by rapid urbanization. Besides the afore cited, the techniques and tools of Land Readjustment (LR) have been adopted in France, Finland, the Netherlands, Sweden, Israel, Palestine, Bhutan, and Taiwan (Doebele, 1982<sup>7</sup> ; Larsson, 1993<sup>8</sup>).

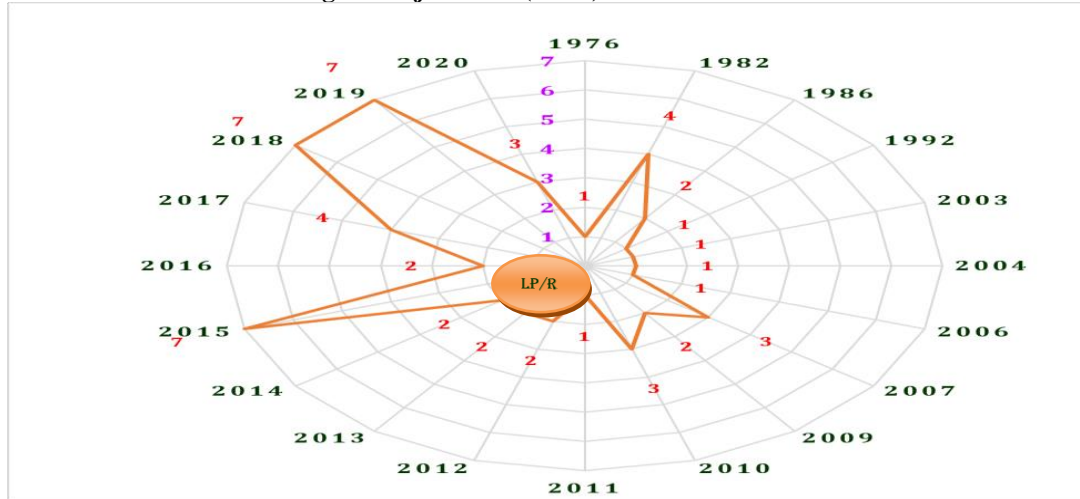
The idea of 'Land Pooling / Readjustment (LP/R)' was experimented, expedited, and experienced in some of the developing countries viz., Republic of China, Indonesia, Malaysia and Thailand (Archer, 1999<sup>9</sup>; Schindman, 1987<sup>10</sup>; Sorensen, 1999<sup>11</sup>, Hayashi, 2002<sup>12</sup>). In India, at first, the Land Pooling Policy was initiated in 1915 by the Bombay Precedency for Bombay Town Planning and it became the basis for Gujarat Town Planning and Urban Development Plan, 1976. During the 20<sup>th</sup> Century, the Land Pooling Policies were extensively used in Maharashtra (MMRDA), Delhi Development Authority (DDA), Delhi, Madhya Pradesh, and Uttar Pradesh to address the urban infrastructure and expedite the development of urban areas. In the State of Andhra Pradesh, the then Government, initiated the innovative and inclusive Land Pooling Scheme (LPS) with the intent of making 'World Class Mega People's Capital Amaravati and sustainable development of City Capital Area (CCA) (Eckert, Gloudemans, and Almy, 1990<sup>13</sup>).

## 2. LAND POOLING / READJUSTMENT (LP/R) - THE ANECDOTAL AND EMPIRICAL EVINCES

Land Pooling/Readjustment (LP/R) is a significant instrument for the construction, modernization, and rapid development of urbanization without any compulsory revoking of land and it is imminent and imperative to make cities more livable, lovable and likable. It was effectively implemented for urban renovation, rejuvenation, and re-modernization in Australia, Angola, Turkey, Taiwan, Japan, Nepal, and India (H. E. Colak and T. Memisoglu, 2019<sup>14</sup>).

Land Pooling / Readjustment (LP/R) is a ‘Land Planning, Management and Financing’ tool and technique and a compelling alternative to ‘Land Acquisition’ in securing land (Ramakrishna Rao Ravi, Suba Devan & Maha Devan, 2018<sup>15</sup>; Achamyeleh Ganshu Adam, 2015<sup>16</sup>) comprising socio-economic-physical, and planning dimensions for combining a group of contiguous urban land parcels as a unit for the planned development (Luciano Minerbi *et al.*, 1986<sup>17</sup>), with the assent and consent of land owners, recommended *good compensation system* besides emphasizing community participation (Banashree Banerjee, 2019<sup>18</sup>; Kenneth P. Davis, 2015<sup>19</sup>; Ricardo Andrés Daza Hoyos, 2015<sup>20</sup>; Andri Supriatna *et al.*, 2013<sup>21</sup>).

Exhibit-1: Land Pooling / Readjustment (LP/R) - The Meta Review from 1976 To 2020



Source: Bibliographic Studies on LP/R

### 3. LAND POOLING SCHEME (LPS) IN AMARAVATI - AN INNOVATIVE AND ALL-INCLUSIVE APPROACH

‘Land Pooling’ is a form of Land Assembly (LA) that is being implemented in cities around the world as an innovative and inclusive urban land development and planning tool. The LPS is a flexible and tailored contract for land owners ensuring the growth potential of the economy. Amaravati Voluntary Land Pooling Scheme (LPS) is based on ‘*Libertarian Approach*’ considering the vision and voice of 30,572 farmers *i.e.*, an ideal of democratic policy.

In Amaravati LPS, 6-Stage Consent Process was initiated and successfully implemented by involving agricultural community (land owners, tenants, and landless labourer) and the Government ensuing on growth potential of the economy. The Amaravati Voluntary Land Pooling Scheme (LPS) was emerged as an acceptable alternative, financially viable and all-inclusive alternative to Land Acquisition, Resettlement and Reconstruction (LAR&R) (Cherukuri Sreedhar, 2018<sup>22</sup>, APCRDA Act, 2014<sup>23</sup>)

In the State of Andhra Pradesh, the then Government, initiated the innovative and inclusive Land Pooling Scheme (LPS) under APCRDA Act, 2014, and AP Capital City LPS Rules, 2015, with the intent of making ‘The People’s Capital Amaravati’.

The Capital City is envisioned to be a global centre for citizen centric governance, economic opportunities, quality living, world-class infrastructure, healthy environment and efficient resource management. The main intent of development of Amaravati Capital City will always remain the holistic sustainable development of City Capital Area (CCA) and projected the population of 3.5 million and employment of 1.5 million by 2050.

The LPS came into existence from 01<sup>st</sup> January, 2015, and in the span of 60 days the Govt., of Andhra Pradesh persuaded 30,572 farmers and pooling up 38,581 acres of land and also dissuaded the ailments of ‘Land Acquisition’ which has never been accomplished anywhere in the world. The Amaravati Voluntary LPS emerged as an acceptable alternative, viable and inclusive alternative to Land Acquisition and Resettlement and Reconstruction. (D. Surya Chandra Rao & K. Bhanu Prakash, 2020<sup>24</sup>). The LP/R was evolved as an elegant and economic instrument to realize UDP through 4Ps’ in which property rights are combined for mutual benefits.

**Exhibit-2: Dynamic Plot Allocation (DPA) in Making-up of Amaravati-An Eagle's-Eye-View**



**Source: Ramakrishna Rao Ravi & Subadevan Mahadevan (2018)., Pooling Land for Development in Andhra Pradesh, Urban Solutions, Issue.13, July, p.p. 1-6.**

The Dynamic Plot Allocation (DPA) has emerged as one of the innovative interventions and an acclaimed Land Pooling Technique for the (re) development of urban fringe and fabric (**Robina Manandhar, 2019<sup>26</sup>**). The DPA was adopted in making of Amaravati, a Sustainable Capital City, for the State of Andhra Pradesh. The others *inter alia* include Spatial Planning and Land Use Management, Guided Land Development and Planning (**Andri Supriatna et al., 2014<sup>25</sup>**), Land Sharing and Sparring, Community Land Trust Model, Transfer of Development Rights under Land Development Control Regulations *per se*.

For ensuring transparency, enabling unbiased and nimbleness in operations, the residential plots are divided into 494 sub-categories with a minimum size being 120 SQFT while the biggest plot size is 25000 SQFT in the process of distribution of land parcels. The commercial plots are also divided into 497 sub-categories with plot size ranging from 30 SQFT to 25000 SQFT. The financial compensation and accrued benefits are shared amongst the stakeholders as per market value on the date of declaration of LPS. The Capital City, Amaravati, is poised to become an economic powerhouse and the proposed 9-Thematic Cities will act as socio-economic anchors for the Capital City.

The Fused Grid Model is the basis for the development of 9-Thematic Cities as per Walk-To-Work Concept. In pursuance to this, a Perspective Plan for 100 years, a concept Master Plan for 20 years and a Detailed Master Plan for 10 years are designed for the promotion and development of Capital Region as well as Capital Region Development Area under the jurisdiction of the Capital Region Development Authority.

The Amaravati Voluntary Land Pooling Scheme emerged as an acceptable alternative and viable and inclusive 'Libertarian Approach' considering the voice of peasants and people which is an ideal of democratic policy. It is an internationally acclaimed and proclaimed unique case of 'Urban Land Transformation' by the then and present Govt., Of Andhra Pradesh for thy people.

**4. LAND POOLING SCHEME IN MAGARPATTA - A FLEXIBLE RURBAN MODEL OF INCLUSIVENESS**

'Magarpatta', a land of 'Magar Family', is located at Hadapsar area of Pune, Maharashtra. The Magapatta Innovative Mixed-Use Township was built on brick and mortar, and full assent and consent of 120 Magars, pooled 430 acres of ancestral land intended to develop urban fringe in green field area. Magarpatta, a sleepy village till 1995, has transformed into a Satellite Township and designated as a Special Economic Zone (SEZ) in 2006. The Joint Development Agreement, 1993, for pooling of land for private purposes and the efforts of Magarpatta Township Development and Construction Company Limited (MTDCCL) have changed the lives and livelihoods of land owners, tenants and agricultural laborer phenomenally. The First Model Eco-City of India is a home for 35,000 habitants and 65,000 workforce with the provision of excellent urban amenities and facilities, network society, education and health and state-of-art technologies and security (**M.A. Siraj, 2019, Anmol Chaudhary et al., 2022**).

Exhibit-3: Magarpatta - The India's First Model Planned Eco-City



The collective and cooperative growth, beneficial tax policy, offering stockholding in the MTDCCCL, the Land Pooling policy and procedures, the Land-Contribution (L-C) Ratio, location and size of reserved plots, Flat-To-Plot Policy, compensation and benefits, One-Time Settlement (OTS), feasibility study of NICMAR, Pune, financial viability and risk assessments of HDFC, Pune, the deferment of stamp duty and development charges, the infrastructural amenities and facilities, consultations among Officials of Consultative Committee, agricultural and affected community, timely process, Master Plan in lines of San Jones City, California, the promised assurances and insurances from project inception to implementation at the behest of agricultural community *per se* flavoured a sweet smelling success of Land Pooling in 162 ha and favoured the idea of inclusive rurban growth (Vishal Bhargava, 2021). The operations and operands of Land Pooling had reposed trust and confidence thereby paving the way for innovative, equitable, participatory and socially inclusive urbanization in Magarpatta.

**Table-1: LP/R in AMARAVATI and MAGARPATTA – The Reflections Matrix (Prior & Post Implementation)**

Drivers and Determinants of LP/R	AMARAVATI-Prior Implementation of LP/R				MAGARPATTA-Prior Implementation of LP/R			
	Yes	No	Do Not Know	Total	Yes	No	Do Not Know	Total
1. Concept of LP/R	386 (96.5)	1 (0.25)	13 (3.25)	400 (100)	100 (100)	-	-	100 (100)
2. Purpose of LP/R	384 (96)	3 (0.75)	13 (3.25)	400 (100)	100 (100)	-	-	100 (100)
3. LP/R Act	385 (96.25)	4 (1)	11 (2.75)	400 (100)	100 (100)	-	-	100 (100)
4. Declaration of LPS in GP or Locality or News Papers or Gazette or Website	382 (95.5)	5 (1.25)	13 (3.25)	400 (100)	100 (100)	-	-	100 (100)
5. Consultations and Consent from Stakeholders	375 (93.75)	11 (2.75)	14 (3.50)	400 (100)	100 (100)	-	-	100 (100)
6. Development Agreement-cum- Irrevocable General Power of Attorney between landowner and CRDA was made	37 (9.25)	77 (19.25)	286 (71.50)	400 (100)	100 (100)	-	-	100 (100)
Drivers and Determinants of LP/R	AMARAVATI - Post Implementation of LP/R				MAGARPATTA - Post Implementation of LP/R			
	Happy	Satisfied	Not Satisfied	Total	Happy	Satisfied	Not Satisfied	Total
7. Received Developed Plot / Flat and Registration Documents	361 (90.25)	26 (6.50)	13 (3.25)	400 (100)	100 (100)	-	-	100 (100)
8. Rehabilitation Package and Perquisites at par with excellence	384 (96)	2 (0.5)	14 (3.50)	400 (100)	100 (100)	-	-	100 (100)
9. Facilities and Amenities provided like Drinking Water, Medical, Sewerage, Roads & Transport improved	144 (36)	132 (33)	124 (31)	400 (100)	100 (100)	-	-	100 (100)
10. Sources of Income-Employment-Savings increased	280 (70)	80 (20)	40 (10)	400 (100)	100 (100)	-	-	100 (100)
11. Standards of Education and Human Developed improved	108 (27)	126 (31.50)	166 (41.50)	400 (100)	100 (100)	-	-	100 (100)

*Contd.,*

*Table-1: Contd.,*

Drivers and Determinants of LP/R	AMARAVATI - Post Implementation of LP/R				MAGARPATTA - Post Implementation of LP/R			
	Happy	Satisfied	Not Satisfied	Total	Happy	Satisfied	Not Satisfied	Total
12. Psychological and Physiological Status	110 (27.50)	56 (14)	234 (58.50)	400 (100)	80 (80)	8 (8)	12 (12)	100 (100)
13. Financial Compensation	80 (20)	54 (13.50)	266 (66.50)	400 (100)	95 (95)	3 (3)	2 (2)	100 (100)
14. Payment Schedule	-	134 (33.50)	266 (66.50)	400 (100)	90 (90)	4 (4)	6 (6)	100 (100)
15. Allotment of Plot / Flat	81 (20.25)	54 (13.50)	265 (66.25)	400 (100)	92 (92)	6 (6)	2 (2)	100 (100)
16. Resettlement Plan	-	134 (33.50)	266 (66.50)	400 (100)	89 (89)	6 (6)	5 (5)	100 (100)
17. Timely Process	1 (0.25)	134 (33.50)	265 (66.25)	400 (100)	92 (92)	5 (5)	3 (3)	100 (100)

Source: Questionnaire

## 5. LAND POOLING / READJUSTMENT (LP/R) - THE FUTURE FRONTIERS AND POINTERS

The scintillating reminiscences, sobering experiences and ruminations of agricultural community in implementation of LP/R in Amaravati and Magarpatta reveal the fact that the sound financial management practices and prudent fiscal management, strong legal laws and good administrative procedures, technical prowess and professional competencies, favourable attitude and forward thinking of people, acceptance of proposals, policies and procedures, an integrated land management by visionary personnel in public administrative services, and subsequent addendums and modifications to the existing policies and procedures are imminent and imperative to make LP/R successful. The level of use and success of LPS depends on continuous assessment, critical evaluation and consistent MEL&D focusing on dynamics, dimensions and directions of Land Management & Land Administration. The environmental scanning, conversion of agriculture land into urban, cultural heritage, policy intervention, sharing of benefits, the provision of land to landless and the poor are also considered before implementation of LPS. The LP/R is an equitable, participatory, and inclusive urban expansion mode and model follow *the just and true principles in rem and persona* on visionary lines (ADB, 2022).

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