

PRELIMINARY DRAFT – FOR DISCUSSION ONLY

**INNOVATIVE AND INCLUSIVE LAND POOLING SCHEME FOR DEVELOPING A
SUSTAINABLE NEW CAPITAL CITY IN ANDHRA PRADESH (AMARAVATI), INDIA**

Cherukuri, Sreedhar

Andhra Pradesh Capital Region Development Authority, India
sreedhar.cherukuri@apcrda.org

**Paper prepared for presentation at the
“2018 WORLD BANK CONFERENCE ON LAND AND POVERTY”
The World Bank - Washington DC, March 19-23, 2018**

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ABSTRACT

Land pooling is a form of land assembly instrument that is being implemented in cities around the world, wherein the land parcels owned by individuals or group of owners are assembled by transfer of ownership rights according to a designated land pooling policy, which later transfers the ownership of the part of land back to the landowners for undertaking development for such areas. In India, the Government of Andhra Pradesh (GoAP) undertook one of the largest land pooling exercises for developing the state's greenfield capital city. The overall extent of the city is 217 km² (about 54,000 acres) including about 15,000 acres of public land. The GoAP took the approach of assembling the private land through an innovative and inclusive Land Pooling Scheme (LPS), the largest of its scale in India and introduced through a formal legislation.

The LPS is designed to ensure that affected people are not just passive recipients of compensation, but rather that they become direct beneficiaries of the increased value of their land as it is incorporated into the urban landscape. The Go AP is leveraging on the land value capture potential in Amaravati to benefit landowners from the potential increase in the land value that will result from the development of the capital city. Moreover, in what is the most innovative part of the scheme, landowners contributing land under the LPS become stakeholders in the future development of the City by being able to reside there. Through the allotment of returnable plots, rural landowners remain as owners of land in the new city and continue to benefit from the potential increase of their plot values. The aggregated expected value of the urbanized returnable plots, annuities, as well as other social development benefits that participants receive under the LPS, exceeds the replacement value of agricultural land assets contributed under the scheme.

In return for contributing their land, landowners participating in the LPS are entitled to a combination of benefits: (i) returnable plots of urban land within the Amaravati City perimeter as per table below (up to about 30% of original land contributed); (ii) annuity payments for a period of ten years; and other benefits extended (including landless families) including pensions, loan waivers, education, health, subsidized canteens, wage employment, skill development and so on (iii) other benefits extended to those dependent on the agricultural lands like labourers, artisans, etc.

Given the significant urban development challenges facing India, the application of land pooling in Amaravati Capital City and the Bank's support for the project will serve as a valuable learning experience on how this innovative land use planning instrument can be explored in the Bank's engagement in other countries in the region and beyond.

Key Words:

Amaravati, Andhra Pradesh, Land Pooling Scheme

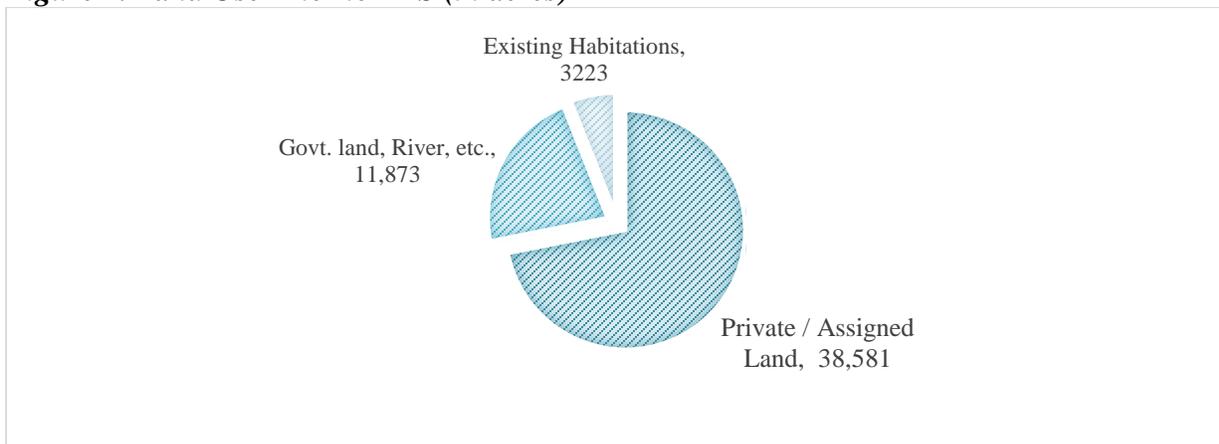
BACKGROUND TO AMARAVATI

The new state of Andhra Pradesh came into existence as a result of a new legislation (Govt. of India, 2014) bifurcating the erstwhile state of Andhra Pradesh into Telangana and Andhra Pradesh. This created an immediate need to create a new capital for the state. After deliberations at Central, State and local levels, the Government of Andhra Pradesh notified capital city area between Vijayawada and Guntur cities as per the resolution passed by the AP state assembly on 03.09.2014. The city was named “Amaravati”, after the strong heritage it holds in Andhra Pradesh’s history.

The Andhra Pradesh Capital Region Development Authority (APCRDA) was established in December 2014 through a legislative Act by (Government of Andhra Pradesh, 2014) and brought into existence the administrative jurisdictions of Amaravati Capital City (217.23 sq.km) and the Capital Region (8,603 sq.km). APCRDA’s mandate is to plan, develop and manage the new capital city along with securing all developments in the capital region.

The Capital city has a total of 217 sq.km, across multiple categories of ownership including - private, Government, assigned lands along with villages and habitations.

Figure 1. Land Use Prior to LPS (in acres)



INTRODUCTION TO LAND POOLING SCHEMES

In the light of various deficiencies associated with the Land acquisition process, the concept of Land Pooling Scheme is increasingly becoming popular across the world. Land Pooling Scheme has been adopted widely in Germany, France, Australia, Nepal and other countries, under different names. It is known as “land readjustment” in Japan and South Korea, “land consolidation” in Taiwan and Indonesia, “land pooling” in Australia and Nepal, and “land replotting” in Canada (Archer, 1994). There are minor variations in the implementation of the scheme across geographies but the merits of the scheme are well established, specifically for urbanization projects.

In LPS, a public agency (often a municipality or a development authority) or through a licensed developer entity pools multiple privately-held land parcels. Next, the agency reserves a part of the pooled land to build infrastructure and public facilities and returns developed land of reduced area,

to the original landowners in proportion to the sizes of their original landholdings. Often, the public agency also reserves a part of the pooled land for future sale to fund the capital cost of the infrastructure. Land pooling offers three key monetary benefits:

the public agency does not incur the land acquisition cost; the public agency is able to finance urban development through betterment charges and the sale of the land; and the landowners' gains from appreciation in the land value due to the provision of infrastructure. (Krabben & Needham, 2008).

The other benefits associated with the Land Pooling Scheme for the landowners are that they are not displaced, and gain high values for the land after the infrastructure is built. The scheme provides an efficient and sustainable method for peri-urbanization of rural areas around expanding urban agglomerations, with specific allocations for affordable housing, open spaces and infrastructure. About 30% of the urban land supply in Japan has been developed by land readjustment, and has also been widely used for the rehabilitation of earthquake, fire and war-damaged areas in Japan, and in Gujarat. (ESCAP, 2000) (Balachandran, 05).

Some India-specific Land Pooling literature is available - (Ballaney S. , The town planning mechanism in Gujarat, India, 2008) and (Ballaney & Patel, 2009) discuss the Land Pooling process for urbanizing peri-urban areas in Gujarat, (Balachandran, 05) reviews the use of LPR to reconstruct the earthquake-stricken city of Bhuj, Gujarat, and (Mitra, 1988) provides a brief overview of the LPR process for Kerala.

In India, land pooling was first used under the Bombay Town Planning Act, 1915 in the erstwhile Bombay Presidency. A few decades later, it became the basis of the Town Planning Act in Gujarat — The Gujarat Town Planning and Urban Development Act, 1976. (Ballaney & Patel, 2009) has provided a comprehensive analysis of the procedure involved in the Town planning Scheme mechanism. The TPS process in Gujarat does not settle ownership disputes, but transfer them to the newly reconstituted plots, thereby ensuring execution of TPS scheme in time bound fashion.

THE AMARAVATI LAND POOLING SCHEME

1. Announcement of benefits under the Land Pooling Scheme

To enable the authority effectively to decide on various critical factors for implementing the Land Pooling Scheme and its benefits, a rapid “Digital Socio-Economic Survey” was designed and conducted. This survey was executed by about 400+ personnel from District Rural Development Agency (DRDA) using digital tablet devices. Each household residing in the 29 villages were surveyed and their socio-economic condition recorded. Seamless data collection and entry operations ensured timely updating and reporting of the daily survey performed. About total of 1.1 lakh population was surveyed within a span of 60 days.

The survey generated precise target groups for consultation as well as extending relevant social benefits. Accordingly, and after various consultations, the following benefits were extended to the landowners for every acre of their land pooled, and also to those who lost their livelihoods (and having no title over the lands), under the Land Pooling Scheme:

Table 1. Benefits provided to LPS Participants

Land	Category	
	Dry	Jareebu / Semi-urban
Patta (Private)		
Residential	1,000 sqyds	1,000 sqyds
Commercial	250 sqyds	450 sqyds
Assigned		
Residential	800 sqyds	800 sqyds
Commercial	100 sqyds	200 sqyds
Yearly payment for 10 years (INR)	30,000	50,000
Yearly increase (INR)	3,000	5,000
One-time additional payment for gardens like lime/fruit bearing crops and flowering crops (INR)	100,000	

The broad objective of the scheme has been to do justice to the families affected by the development of the livable and sustainable capital city of Amaravati. The following social benefits have been mandated as part of the LPS rules for all the eligible residents of Amaravati. It is noteworthy that the benefits of the scheme were designed to cater to not just the landowners but also to those who lose their livelihood, such as agricultural workers, artisans, etc.

- (a) **Pensions:** provide a pension of two thousand five hundred rupees per month per family for a period of ten years to all landless families through a capital region social security fund.
- (b) **Loan Waiver:** to provide one-time agricultural loan waiver up to one lakh fifty thousand rupees per family to farmers as per the prescribed procedure of Government.
- (c) **Housing:**
 - To issue possession certificates in village sites to enable the occupants to regularize house sites.
 - To provide housing to houseless as well as those losing houses during development.
- (d) **Loans:** to provide interest-free loan of up to 25 lakhs to all the poor families for self-employment.
- (e) **Education and Health:** to provide free education and medical facilities to all those residing as on 8th December 2014.
- (f) To establish **old age homes**.
- (g) To establish **NTR canteens** (subsidized canteens).
- (h) To enhance the limit under **NREGA** up to 365 days a year per family (minimum labour days provided).
- (i) To establish **skill development** institution and provide training with a stipend to enhance the skills of cultivating tenants, agricultural labourers and other needy persons.
- (j) To engage **tractors** belonging to residents for construction activity.

- (k) To issue ownership and transit permission through forest department for **cutting and sale of teak trees** in private lands duly exempting the relevant fees.

Within a short span of 1 year, the Land Pooling Scheme was very successful, with over 33,493 acres from over 27,151 landowners.

2. LPS consent and development agreement

To implement the scheme across 29 habitations spread across 24 revenue villages, 26 Land Pooling administrative units were set up. These units were formed by deputing personnel in various cadres from 13 districts of the State revenue department.

The process of Land Pooling in Amaravati commenced with a notification of all the land parcels covered by the development scheme. Based on public consultations and satellite imagery, the existing village habitation areas was identified and exempted under the LPS. The Government notified 47,573.10 acres under LPS and the target under LPS was 38,581 acres.

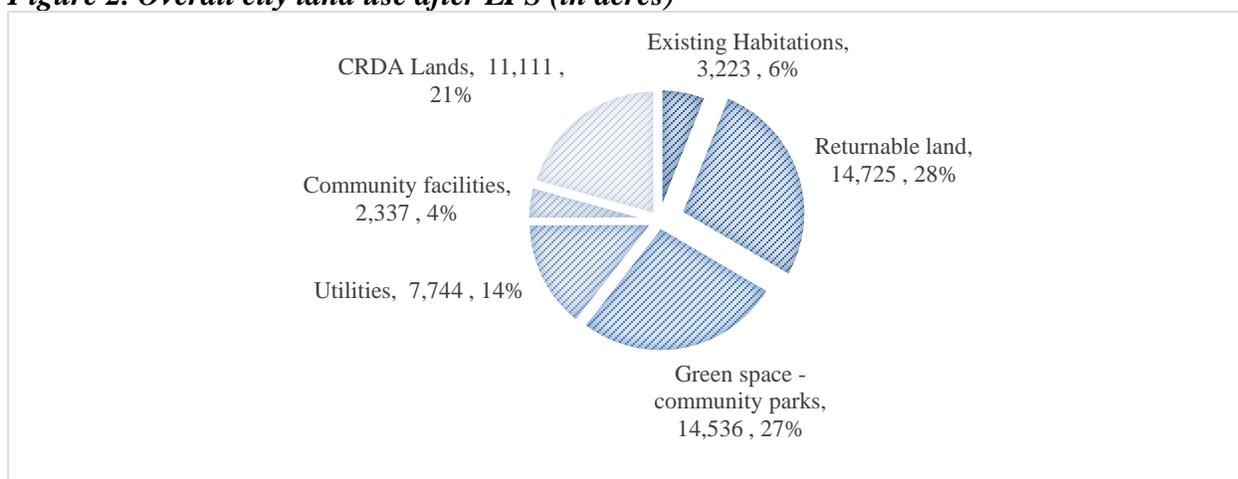
Consents were obtained from farmers in the form of a declaration of intention to participate in LPS. The landowners enter agreement of development with APCRDA in the prescribed form (titled “Form 9.14 (B) – development agreement cum irrevocable power of attorney” (MA&UD (M2) Dept., Government of Andhra Pradesh, 2015)) to enable the Authority to proceed further with planning, allotment and development of LPS layouts.

3. City masterplan and village-wise plans

The overall Amaravati Masterplan was drafted for the construction of Capital city development project, with specific allocations and zoning for the Land Pooling Scheme residential and commercial plots. The Masterplan identified “happiness” as its key principle, and accordingly there has been emphasis on creating abundant green space (27% as depicted in Figure 2), and ample spaces for community facilities (4%) at all scales of the Masterplan viz. from the neighbourhood level to the city level. The existing habitations were left unaffected without displacement, unless a major road as per the grid network came in the way of the settlements. After the draft masterplan was notified, extensive consultations were conducted during which over 4,000 objections and suggestions were received. These were studied by a Technical committee, incorporated into the plans appropriately, and the final masterplan was notified in February 2017. As a result of these consultations over 3600 impacts were avoided.

Village level plans showing the residential and commercial plots were also displayed, explained and discussed with the landowners to create awareness. The landowners were allotted their returnable plots within the same revenue village or in close proximity to their existing habitations by way of taking transparent digital lottery.

Figure 2. Overall city land use after LPS (in acres)



4. Consultations with the farmers/landowners

Multiple public consultations and awareness sessions are held at every village and various inputs that were raised during the meetings duly found its place in the plans prepared for the city. Most of these concerns related to compliance of the plans with local traditional belief system called “Vastu”.

5. LPS Plot allotment policy

- As per principles laid out in the Amaravati Masterplan (Andhra Pradesh Capital Region Development Authority, 2016), the dimensions of the neighbourhood plots were discretized to ensure optimum utilization of land and ensure planning principles of liveability were implemented. Landowners hence were given multiple plot sizes to pick any number of, totalling to their returnable plot area entitlement. A total of 498 plot sizes for residential land use and 493 plot sizes for commercial land use were provided.
- The Competent Authority verifies the options given by the landowner with the revenue records and forwards the data of the required plots and categories to the Estates and Planning departments of CRDA. The overall process was aided by an IT application specifically developed for this purpose. Ownership information is kept confidential. Size, the category of the plot and number of plots to be planned are only shared.
- A landowner was given complete freedom in exercising not just the number and sizes of plots, but also the option to join with other landowners to increase the overall returnable extent. The same was applicable to the residential land as well as commercial land.
- For the balance area, the farmers can request undivided shares in an earmarked standard plot identified by CRDA and realize the compensation by conducting an auction, or bonds having transferable development rights (TDR Bonds).

6. LPS layout preparation

Based on the plot options exercised by the landowners, the inputs on planning principles and the neighbourhood design as per the urban planning framework in the Amaravati masterplan, draft layouts were prepared and notified for each village. The same were uploaded in APCRDA website, notified in the district gazette and given 30 days for filing objections/suggestions.

- After compiling the received objections/suggestions by the Competent Authority, several consultation meetings were held both at villages and in APCRDA office.
- Accordingly, final LPS Layout was prepared and notified for each village, the final layout maps are displayed at the village Panchayat office gazette, uploaded in APCRDA website, notified in the district gazette.
- The lottery date was announced after a few days and the returnable plots were allotted to the landowners through a transparent electronic lottery.

7. LPS Lottery process

- The lottery is the most important milestone in the entire LPS process, as the farmer will get the returnable residential/ commercial plot allotted through this process. The lottery date, venue and the time of lottery are notified to all the villagers who participated in the LPS, through SMS, local dandora (streetwise public announcement) and other means. Hon'ble MLA, ZPTC, MPTC, Sarpanch, and other village elders are invited to conduct and witness the lottery.
- A committee consisting of Government officials was constituted to conduct the lottery in a transparent process. Senior dignitaries such as District Collector, Commissioner CRDA and Hon'ble Ministers have also attended the lottery process.
- A print of the final LPS layout of size 12'x12' containing the lottery code and plot locations are displayed at the respective panchayat office and at the lottery venue. The layout is also uploaded on the website of APCRDA. Farmers are given handouts containing the maps of layouts and plot codes.
- The Lottery process and the Planning process are explained to the farmers before the lottery is conducted.
- At least one trial run is conducted mandatorily, both for residential and commercial allotments in the presence of the public representatives and before the public.
- The results of the trial run are printed and kept for public viewing. The time of trial run and the watermark "TRIAL" is printed on the sheets.
- The public can demand trial runs typically for 3 times to satisfy with the lottery process and results of the trial runs are printed and signed by the committee for any reference and

for public viewing.

- On complete satisfaction and on public demand “FINAL” lottery will be done by the public representatives both in respect of Residential and commercial plots allotment.
- Immediately after the final plots allotment through randomized plot allotment (Lottery), the results are sent to each and every farmer through SMS.
- On completion of the lottery, the allotment and the lottery results are displayed on the website of the APCRDA and individual allotment letters are generated and handed over to the farmers then and there itself. Alphabetically organized allotment letter handing over counters are set up during each lottery session.
- The results are also uploaded to the web for viewing and downloading the allotment letters by the farmers.
- All the results including the trial runs are available with the respective Competent Authorities for inspection.

8. LPS Layout PegMarking

- The returnable plots to the landowners are marked on land by using a DGPS machine (Differential Global Positioning System) and pegs are placed on the boundaries.
- Digital coordinates are included in the ownership details, making it easy for digital cadastre,

9. LPS Plot Registrations

- The government of Andhra Pradesh (GoAP) bears all the costs incurred for registration of farmer’s land to CRDA as well as registration of returnable plots to farmers by CRDA.
- CRDA has opened helpdesk/ facilitation centre in the Sub Registrar’s office to ease the registration process for the farmer/landowner.
- Registration documents are prepared by Competent Authorities to reduce the burden on farmers/landowners and fasten the registration process and help desks are put in place.

10. Development of infrastructure

The Government has plans to develop world-class infrastructure for the Land Pooling Schemes, the detailed designs of which have been finalized. Total planned expenditure is 17,092 Cr. Developing LPS infra is a commitment as part of LPS process under the APCRDA Act, and the LPS F&I Rules and Regulations (MA&UD (M2) Dept., Government of Andhra Pradesh, 2015). The Government is meeting this expenditure through an array of instruments including multi-lateral loans, commercial loans, PPP, domestic and international Bonds etc.

11. Progress of Social Benefits extended

Various social benefits were provided to the LPS participants and the project affected families, which have played a pivotal role in ensuring its success.

- (a) **Skill development:** Skill development was provided for 513 persons on various courses, and “job fairs” organized helped over 1,003 persons receive jobs.
- (b) **Pensions:** The landless poor were also provided benefits, to the extent of Rs. 2,500 per month is being provided to 20,110 families. A total of 104 Crores has been released to this date. A notable move by CRDA in this regard is to provide this amount to the female members of the family, to ensure better utilization.
- (c) **Canteens:** 2 subsidized canteens, have been started in the city, run with the help of a reputed NGO.
- (d) **Health:** The State’s healthcare scheme was extended to all the LPS families, ensuring basic and emergency medical requirements are met. Additionally, 4 health camps were conducted in the city, and over 22,000 health cards have been issued to the families. The existing Public healthcare centre in the city was also upgraded.
- (e) **Education:** Reimbursement of tuition fees is being provided and special schemes are in place for backward classes.
- (f) **Employment:** As per the NREGA scheme, over 16,132 job cards were issued to the participants, and over 56,326 man-days of employment has been provided.
- (g) **Local machinery:** The contractors in the capital city have been advised to utilize local machinery wherever possible, and works over Rs. 70 lakhs have been undertaken through local machinery that have been purchased by the citizens of Amaravati.

EVALUATION AND KEY SUCCESS FACTORS ON AMARAVATI LPS

Financial viability of the Land Pooling Scheme

The Land pooling scheme was planned to account for all the private lands in the city, for an extent of 38,567 acres. Accordingly, a total of 10,355 acres was set aside in terms of returnable plots. However, providing for the additional roads and community facilities, the total gross area required for the LPS land owners accounts for a total of 18,772 acres. The remaining land that is available to the Government is around 19,795 acres, in lieu of cost of development charges incurred.

Whereas most Land Pooling Schemes monetize the land retained by the public authority for financing the cost of Infrastructure, there have also been examples where a “betterment” charge is levied from the landowners to partially fund the cost of infrastructure. In Gujarat, the betterment charge is calculated as half the difference between the future price of the plot and original price of the land contributed, both values of which are publicly notified. (Mathur, 2013).

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In Amaravati, to finance the overall development scheme for the Land Pooling Scheme, CRDA is raising funds through a variety of instruments including multi-lateral and commercial loans. Almost half the overall works in the LPS layouts have been called for on Hybrid-Annuity model, where private entities undertaking the development would be paid a portion of the works' expenditure on annuity over 10 years.

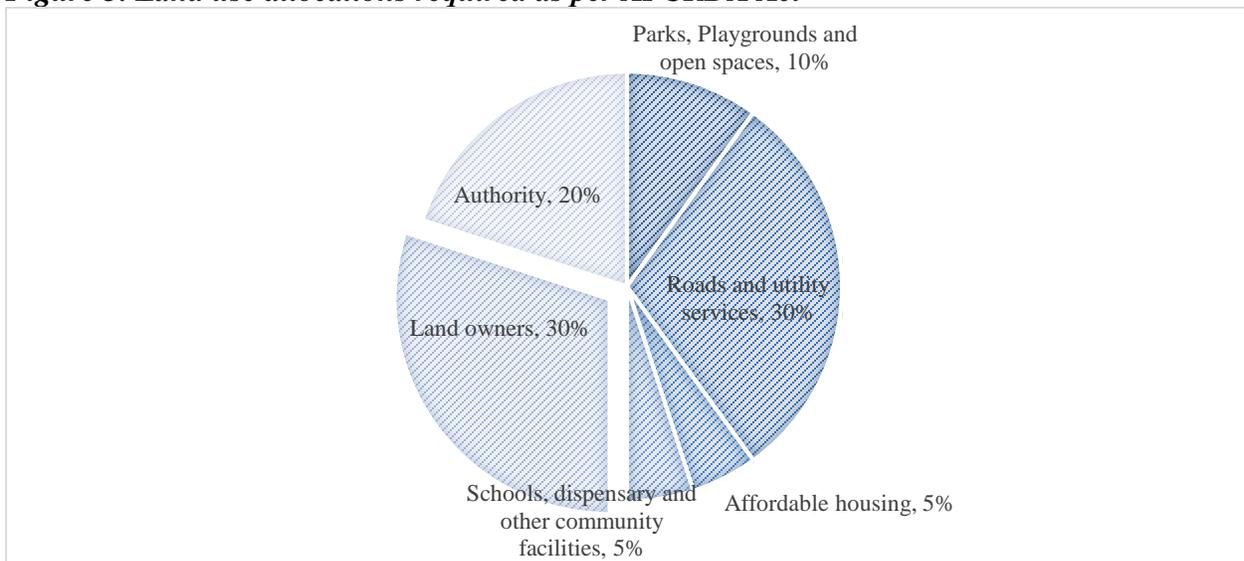
A majority of the high density commercial and industrial lands in Amaravati are under possession of the CRDA, and will be monetized over time to enable the repayment of the debt raised. Additionally, since the tax revenues of the state will substantially increase in proportion to the strong economy that will emerge in Amaravati, the state government also provides backing for the debt raised.

Land use under the Land Pooling Scheme

Under section 53 (1) of the APCRDA Act, the following reservation was made mandatory for the land pooling scheme is listed below and illustrated in Fig 4.

- (a) ten percent of total area of the scheme for parks, playgrounds, gardens and open spaces;
- (b) thirty percent of total area of the scheme for roads and utility services;
- (c) five percent of total area of the scheme for social amenities such as school, dispensary and other community facilities;
- (d) at least five percent of total area of the scheme for providing affordable housing for the poor;
- (e) a share of the total area of the scheme specified by the Authority for reconstituted plots/land for re-allotment to landowners;
- (f) a share of the total area of the scheme specified by the Authority in lieu of the cost of development towards the provision of infrastructure, amenities, trunk infrastructure and other costs and expenses to be incurred for the scheme. The Authority may use this land for development of capital city area or for residential or commercial or public or semi-public or any other purposes as may be approved by the Authority.

Figure 3. Land use allocations required as per APCRDA Act



Various Land Pooling Schemes have often neglected adequate allocation of land for parks and other social amenities such as schools within the planning schemes. In Gujarat, when multiple Town Planning schemes were undertaken, the percentage allotted for parks and social amenities were as low at 2%, and not exceeding 9% in any case (Mathur, 2013). In Nepal, there have been

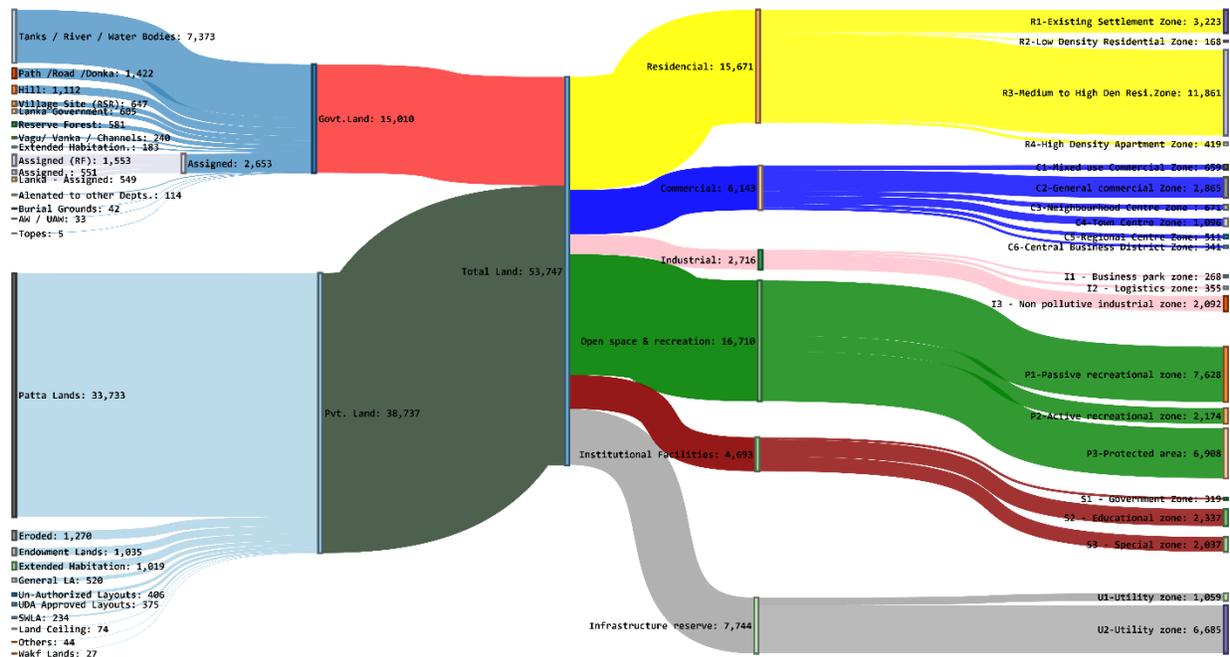
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schemes where allocation were made for parks due to opposition from the landowners for higher returnable plot areas. (Karki, 2004).

In the case of Amaravati however, there is ample allocation made for parks, schools, health centres, sports centres and so on within the city. The Amaravati Masterplan clearly defines a hierarchy of these facilities that have been incorporated across various scales, from the neighbourhood, township and the city levels. As indicated in Figure 2, the total allocation made towards green cover including playgrounds, parks and open public spaces are at over 27% with an additional 4% earmarked for community facilities. In addition to the provisions made at the city and regional level, at a neighbourhood level, the available area for public spaces exceed a minimum of 4% for public spaces and 3.5% for social amenities (Planning team, APCRDA, 2018), which are well above global standards followed in the case of Land pooling development schemes. There is an allocation of as much as 37% for utilities such as roads and services, as landowners were provided with the option of opting for multiple small plots instead of a single large plot, which has resulted in the creation of a dense layout network.

It is expected that the enhancement in quality of liveability contributed by the facilities provided will create a substantial increase in the land prices for the landowners and the public authority. Moreover, such meticulous urban planning and design has rarely been undertaken in India. Amaravati hence emerges in itself as a role model for creating sustainable, vibrant and livable communities. The total change of land-use from its ownership to the final land-uses is noteworthy and depicted in Fig 4.

Figure 4. Land Use before and after LPS & Masterplan (in acres)



Amaravati Voluntary Land Pooling Scheme proved a viable and inclusive alternative to LA R&R Act 2013.

Amaravati Voluntary land pooling scheme emerged as an acceptable alternative in place of the often-coercive method of acquisition through LA & RR Act 2013. The Land Pooling Scheme provided a flexible and tailored contract for the landowners, ensuring the objectives of the landowners as well as the public authority. This paradigm shift from a set of rules enforced in the case to LA & RR Act 2013 for eminent domain, to the libertarian approach reflects the empowerment of the voice of the affected citizens which is an ideal of democratic policy.

The voluntary land pooling scheme has for the first time ever offered win-win partnership. Till date, 27,200 farmers (of 30,572) have entered into development agreements with the authority, indicating a participation rate of 88.9%. The entire process is laudable, as it has addressed the critical concerns of the landowners and others project affected parties. In our assessment, after carefully evaluating the extent of voluntary participation in LPS, it can be concluded that Amaravati Voluntary Land Pooling Scheme is a path-breaking initiative and can change the infrastructure development model in the country.

The scheme has facilitated inclusive development. In addition to the guaranteed benefits under development agreement under LPS, landowner becomes resident of the capital city having access to capital city infrastructure, access to high level of educational, medical and recreational facilities. The capital city inhabitant will reap the benefits of short term and long term earning opportunities and will continue to benefit for multiple generations and lifecycles by participating in LPS. In a typical development project, the majority project benefits vest with government or private entities who are involved. Herein the project benefits - appreciation of land values, opportunities, economic activity, etc., accrue to all parties. All development economics talk about participatory and inclusive development and the Amaravati example is by far the single largest successful example of this nature.

Provision for Affordable Housing

Often Land Pooling Schemes are successful in creating a large number of serviced plots for various purposes, however, the affordability of these plots have been a common issue (Karki, 2004). However, in the Amaravati Land Pooling Scheme, specific provision has been made for affordable housing and several other social amenities such as schools, parks, health care centres and so on. This, in turn, will ensure that the urban stock created is suitable for all economic classes, and not just the elite. In fact, in parallel to the development of infrastructure for the plots, CRDA has commenced the construction of 5,000 dwelling units of affordable housing in various locations of the city.

Definitive project costs

Land is a key resource for any development project and the uncertainty around making land available for the project drives the project into unlimited liability risks. The voluntary LPS process of Amaravati helped the proposed Bank financed project make available 98% of land in shortest

possible time, thereby facilitating complete control over cost overruns, overheads and project durations. In short, the entire project can benefit from the consolidated and definitive parameters.

Extensive Consultation and use of IT tools

An IT application was developed for managing the LPS process and its related activities. The applications enabled and streamlined all required documents and agreements required as per the scheme. All the objections, suggestions and grievances were also received and managed through the system. The system helped maintain a comprehensive list of owners, plot details and other related information, which was linked with the country's unique identification number, Aadhar. This helped ensure that no duplication had occurred especially with regard to fund disbursement for pensions and annuities. All the details of the scheme, including the plots, the benefits provided till date and so on are made available on the APCRDA website.

Apart from the use of technology for implementation of the scheme itself, CRDA also launched a mobile application titled “Mana Amaravati” (translating to “My Amaravati” in Telugu), which helps connect the land owners who are willing to sell their plots with potential buyers. The app also serves as an effective grievance redressal system.

The administration has made use of technologies - IT for filing applications, conducting lotteries and channelizing information back and forth. In fact, all these processes and efforts have been well documented and will serve as ready reckoner for reference by similar future projects.

Improvement in infrastructure facilities in existing settlements

Existing villages are made part of the capital city without displacement and plans were drafted to upgrade village infrastructure to the standards of the infrastructure developed across the city. As such, several infrastructure facilities have already been upgraded, which resulted in improved mobility, access to services and facilities.

Significant positive impact on lifestyle and living conditions

The LPS has made a significant positive impact on the lifestyle and living conditions as the communities could become financially independent, thanks to increase in the land prices, waiver of loans and improved credit facilities.

It is noteworthy that in previous schemes where the landowners receive direct monetary compensation for their lands are often linked with increased consumerism and alcoholism (Morris, 2007) (Narain, 2009). In the case of Land Pooling scheme, whereas the same risk exists, a landowner with commercial plot as well as the option to avail interest-free loans, is expected to take up entrepreneurship and be a strong anchor to the economy. APCRDA through various social development initiatives and livelihood development plans with support from reputed NGOs is supporting the entrepreneurship efforts.

Consultations, Greivance redressal and dispute resolution

The key enabler in the overall success is observed to be Consultation at all levels - landowner level, family level, and village level and in every step in the process of consent and agreement under LPS. The Competent Authorities at each village worked very closely with the landowners to settle disputes at various levels, including family disputes, survey errors, encroachments, enjoyment issues and so on. The titles and ownership of land was clearly established, during the LPS process. Specialized help desks were opened for the settlement of these disputes and grievances.

A significant observation worth mentioning here is that in the LPS process, the farmer is required to sign with CRDA at least six times before final consent is taken. This is a significant departure from the Town Planning Schemes of Gujarat where although there are ample opportunities for public inputs, landowner consent is not required. (Mathur, 2013).

The 6-stage consent process has completely mitigated the risk of information asymmetry to the farmers and helped them to make an informed decision in a very transparent and democratic manner. Following the successful completion of the last milestone of returning the land to the farmers for over 60,000 parcels through the lottery and title registration, the legal disputes are set to further decrease, resulting in transparent transactions which in turn will unlock huge growth potential of the economy.

CONCLUSION

There have been multiple accomplishments that Amaravati's Land Pooling Scheme has demonstrated in the context of other land procurement means, as well as other Land Pooling Schemes implemented across the world. Whereas Land pooling schemes have always been successful in ensuring the involvement of the landowners in the project, ensuring an equitable partnership between the people and Government, we note that the Amaravati Land pooling scheme sets new precedents in providing for benefits not just for the land owners but also landless labourers who are affected by the scheme. Through multiple consultations with the public, the Government provided a libertarian approach, listening to the various demands of the landowners, handholding them and translating them patiently into benefit packages, revisions in plans and so on, which is strong departure from the Authoritarian approach, typical of government systems. With 27,000+ landowners who are partners to the project, Amaravati has forces apart from the Government to contribute to the economic activity in the city, which would not have been possible with Land acquisition. The various social benefits and livelihood transformation programmes that the Government has undertaken, including immersion visits by the farmers to Singapore were all taken up with the understanding that any urban environment is only a projection of its citizens.

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