

THE COMPARATIVE ANALYSIS OF PUBLIC PRIVATE PARTNERSHIP MODELS IN AFFORDABLE HOUSING IN INDIA

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ABSTRACT: Housing is one of the major significant concerns in both domestic and international contexts. By 2030, 3 billion people would be homeless and in need of affordable housing, according to UN Habitat (Gupta A. , 2018). As per census data 2011 377.10 million Urban population, residing in India. In developing India, we are facing a housing crisis to meet the growing urbanization of the population in search of work (Sangam 2019). It was estimated that around 18 million shortage of Urban housing and around 95% of them are EWS and LIG categories (Jain, 2017). Government took initiatives to cater this problem by providing affordable housing to the identified beneficiaries with lowest price. One way to ensure that initiatives for affordable housing are completed successfully is through private-public cooperation but the use of PPP in affordable housing developments is quite restricted, and there aren't many success examples (Singh, 2011). This papers aims to discuss about the comparative analysis of PPP strategic models of affordable housing in India which is introduced by the Ministry of housing and Urban affairs, the situation in Odisha state and what are the challenges facing in this process of taking initiatives to introduce PPP in affordable housing to be successful.

Keywords: - *Affordable Housing, Public Private Partnership*

1.1 INTRODUCTION:

As the term “Affordable Housing” Units implies, those who fall into the lowest socioeconomic bracket and earn less than the Indian government's definition of middle-class families are considered to live in cheap housing and to satisfy the housing needs of low-income groups (LIG) and the struggling economy (EWS) (Gupta K. , 2022). Since 2015, the urban population has increased by 2.1% yearly on average. If things stay the same in 2022, there would be a shortfall of about 30 million housing units in metropolitan regions (Gupta K. , 2022).

On the other side, the government's attempts to help the poor and EWS (economically weaker sections) find housing have mostly fallen short of expectations. In addition, the housing needs of LIGs (lower income groups) are blatantly ignored, and there is a severe lack of cheap housing to serve this part of the population. The difficulties of delivering cheap housing can be solved by combining the advantages of private and public players. Superior results may be attained through case-specific PPP frameworks with sensible risk distribution and value generation (Shankar, 2017).

According to the 2012 report of the Technical Group on Urban Housing Shortage for the 12th Plan, which was established by the Ministry of Housing and Urban Poverty Alleviation, the total number of households in India needing "excellent" housing in cities was assessed to be 18.78 million and The economically weaker sections (EWS) and low income group (LIG) accounted for 96 percent of the total housing shortage in India shows in **Table 1**. And The only way to speed up development is to use PPPs in the housing industry due to the growing lack of yearly controls. India has long used PPP to build infrastructure. PPP was employed as a

trial project for homes in a number of provinces, including Andhra Pradesh and Maharashtra. However, the outcome falls short of what the Indian government had hoped for. It causes a lack of dwellings (Gupta K. , 2022).

Table 1 Distribution of estimated urban housing shortage in India (million)

Source: (TG-12, 2011)

Factors	As at end-2012
Households living in non-serviceable katcha houses	.99
Households living in obsolescent houses	2.27
Households living in congested houses	14.99
Households in homeless condition 0.53	.53
Total Urban Housing shortage	18.78
I. Economically Weaker Sections (EWS)	10.55(56%)
II. Low Income Group (LIG)	7.41(40%)
III. Medium and High income group (MIG+HIG)	.82(4%)

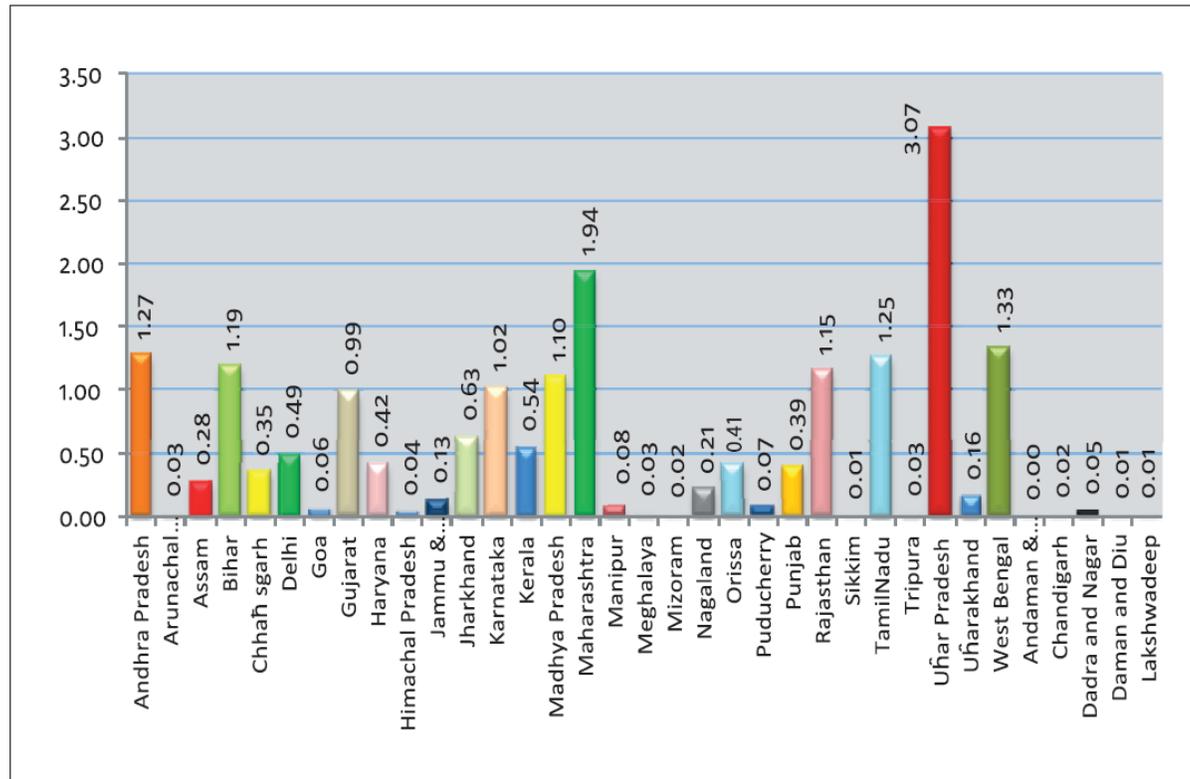


Figure 1 Distribution of housing Shortage among states and UTs

Source: (TG-12, 2011)

Uttar Pradesh, Maharashtra, Andhra Pradesh, Tamilnadu, West Bengal, Bihar, Madhya Pradesh, Rajasthan and Karnataka these are the states which has housing shortage above one million. While efforts to provide low-cost housing have been ongoing for many years (National Housing Policy, 1994; Jawaharlal Nehru National Urban Renewal Mission, 2005; Rajiv Awas Yojana 2013), the Pradhan Mantri Awas Yojana (PMAY) launched in 2015 provides a new impetus - the PMAY-Urban (PMAY-U) subsumes all

previous urban housing schemes and aims to achieve 'Housing for All' by 2022. The overall housing shortfall anticipated to be solved by the PMAY-U programme is 20 million (Palayi & Priyaranjan, 2018).

The mission has comprised of four components:

- **In-situ informal settlements (ISSR):** By redeveloping the current slums on public/private property, the programme leverages land as a resource to give dwellings to qualified slum inhabitants. The planning and implementing authorities of the states/UTs receive a payment from the federal government under this programme equal to one lakh rupees each home.
- **Credit-linked subsidy scheme (CLSS):** Under this scheme, main lending institutions Primary Lending Institutions (PLIs) give EWS, LIG, and MIG families with easy institutional credit for the purchase of dwellings with interest subsidies credited immediately to the borrower's account. This effectively lowers the housing loan and equated monthly instalments (EMI).
- **Affordable housing in partnership (AHP):** In order to increase private investment in affordable housing projects, it intends to offer financial support to private developers. Central aid is given at a rate of "1.5 lakhs per EWS house" in private projects where at least 35% of the homes are built for the EWS group.
- **Beneficiary-led construction or enhancement(BLC):** In this program, the median assistance is 1.5 lakh per family in building new or expanding EWS and LIG houses (Palayi & Priyaranjan, 2018).

To Encourage Private developer partnership with public sector to achieve the goal of housing for all by 2022 along the PMAY(Urban) scheme, Ministry of Housing and Urban Affairs made Eight Models that how to make the process of affordable housing and the roles of the stakeholders i.e. Public Sector, Private Sector and the Beneficiaries respectively (MoHUA, 2017).

Models based on Government Land:

Model 1: Government-land Based Subsidized Housing (GLSH).

Model 2 Mixed Development Cross-subsidized Housing (MDCH).

Model 3 Annuity Based Subsidized Housing (ABSH).

Model 4: DBFMT –Annuity cum Capital Grant based Subsidized Housing (AGSH).

Model 5: Direct Relationship Ownership Housing (DROH).

Model 6: Direct Relationship Rental Housing (DRRH).

Models based on Private Land:

Model A: Taking advantage of CLSS (Credit Linked Subsidy Scheme).

Model B: Private Land Based Models under AHP (Affordable Housing in Partnership) scheme.

The study of this paper is about above models and how the stake holders sharing the Risks involved in this process to success the primary social objective of the country (granting house ownership in accordance with their demands to all current slum dwellers. the development of new low-cost dwelling stock to address the current supply-demand mismatch.) as well as Economic objective (Organizing the project to obtain economic benefits that will attract private sector investment) (Frank).

1.2 AIM:

To study the models of PPP to cater housing in the Indian context.

1.3 OBJECTIVES:

- To analyse the structure of the models of PPP for affordable housing.
- Studying by a Comparative analysis among all models of Risk sharing factor.

1.4 RESEARCH METHODOLOGY:

By doing a comparative analysis across all PPP models, this exploratory study seeks to address the risks associated with the public-private partnership models used in the housing sector as well as the implementation issues for affordable housing. The secondary data was gathered from a variety of sources, including books, the internet, publications, research papers, etc. The goal of this work was to create a PPP model structure that produces an adequate risk distribution.

1.5 RESULT AND DISCUSSIONS:**A. Role of Stakeholders in the PPP Model Structure:**

- **Government Entity:**
The public Authority supplies land (the subsidy from the state) in case of the models related to government land, sets the parameters for the project (technical specifications, land area, no. of housing units and their sizes, construction time), decides on the recipients, pays the private developer in accordance with the completed milestones and provides trunk infrastructure facilities to the selected land, Beneficiaries are given (transferred) housing units, and beneficiaries are asked to contribute in order to cover costs.
- **Private Entity:**
The project is to be designed, built, and financed housing units are built to predetermined standards, at predefined costs, and within predefined intervals, and completed housing units are handed to the government entity and Maintenance of the project for decided period of the years as per the agreement. And as an incentive which is offered by the government like extra FAR/FSI, TDR, Income Tax Relaxation etc. is the point of interest for the private developers to come in to the PPP deal.
- **Beneficiaries:**
Payment of EMIs or a predetermined lump sum to a government entity upon the transfer of a housing unit, as well as maintenance of the building's common areas, public areas, utilities, and infrastructure.

B. Comparative Analysis of Risk allocations in all Models: Below in Table 2 all parameters mentioned which are the potential risks of the model which are allocated among the stakeholders who are involved in the Affordable housing.

*Table 2 Comparative analysis of Risk allocations in all Models
Source (MoHUA, 2017):*

Parameter	Model 1 (GLSH)	Model 2 (MDCH)	Model 3(ABSH)	Model 4(AGSH)	Model 5(DROH)	Model 6(DRRH)	Model A	Model B
Design & Construction	Developer	Developer	Developer	Developer	Developer	Developer	Developer	Developer
Maintenance	Beneficiaries	Beneficiaries	Developer	Developer	Developer	Developer	Beneficiaries	Beneficiaries
Distribution	Developer to Govt.Entity	Developer to Govt.Entity	Developer to Govt.Entity	Developer to Govt.Entity	Developer to Govt.Entity	Developer to Govt.Entity	Developer to beneficiaries	Developer to beneficiaries
Trunk Infra by	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Private Developer & Govt. Entity	Private Developer & Govt. Entity
Land provision	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	developer	developer
Off-take responsibility	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Private Developer	Private Developer	Private Developer & Govt. Entity	Private Developer & Govt. Entity
Off-take related performance bonus	10%-15% linked to no. of units sold	10%-15% linked to no. of units sold	10%-15% linked to no. of units sold	10%-15% linked to no. of units sold	Not Applicable	Not Applicable	Applicable	Applicable
Financing	Private Developer	Private Developer	Private Developer	Private Developer & Govt. Entity	Private Developer	Private Developer	Private Developer	Private Developer
Cross subsidy	Not Applicable	Land for Highend housing	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Incentives from State government	Incentives from State government
Cost recovery by Developer	Govt.entity pays lump-sum amount on completion	Revenue generated from high-end housing	Govt. entity pays long term annuity payments on completion	Govt. entity pays upfront grant & longterm annuity	Beneficiary pay lump-sum amount or EMIs to developer	Beneficiary pay monthly rent to developer	Beneficiary pay monthly rent to developer	Beneficiary pay monthly rent to developer
Beneficiary identification	Govt. Entity	Govt. Entity	Govt. Entity	Govt. Entity	Private Developer	Private Developer	Govt. Entity	Govt. Entity

- Only in Model 2 there is a cross subsidy where the government supplies the land for Affordable Housing to private developer instead of that private developer have to build dwelling unit with free of cost and the developer getting some portion of land for commercial or any high-rise development and in Model A and B they are getting incentives like extra TDR/FAR/FSI and/or other concessions.
- Except Model 1, 2, A & B remain in all models the private developer would be responsible for the maintains of the dwelling units.
- In Model 5, 6, A & B the private developer distributes or hand over the units directly to the beneficiaries because in these models the developer responsible for cost Recovery and in Model 5 they give ownership to beneficiaries on completing on payment for the unit but in Model 6 private developer keep the ownership and give the units for rent.
- Infrastructure development responsibilities lays on public authority and for this another way to make possible the infrastructure by other EPC or PPP structure. In Model A and B the infrastructure responsibility lays on both Government and Private developer.
- Designing building and financing for project falls on private developer.
- Off take Responsibility in Model 5 and 6 fully relay on private developer the need for acceptance of dwelling units by the allotters is more important to recover the cost of the project and in remain models the developers share the offtake risk with the public authority, where the public authority offers bonus rewards for each unit fulfilment or accepted by the allotters and all this connected to the land where it be happening which has all kind of infrastructure facilities.
- In Model 4, both public Authority and private developer sharing the financial responsibility for the AH project where the govt. giving financial support of 40-50% of the project cost at the starting of the project construction and the payment to the developer would be in milestone based payment.
- Beneficiary selection criteria are made by public Authority and in an open and fair process, the government will choose the recipients from among the qualified beneficiaries.
- Public authorities might carry this out directly, with the aid of civil society organizations and NGOs, or in conjunction with them. But in Model 5 and Model 6 private developer identifies the beneficiary because the cost recovery responsibility depends on the developer, so it is important that developer's involvement for identification of the beneficiaries.
- Taxation benefits under Section 80 IBA of Income Tax Act 1961 may be extended to eligible developers (MoHUA, 2017).

1.6 CONCLUSION:

As per Indian situation in PPP in affordable housing, most of the projects coming under Model 2 which is very famous but not every time there is available of government land with having good infrastructure around. For this urban centre planning should be prepare as to encourage mixed development plan so that the infrastructure development should reach to the underutilized land parcels of government.

In 2017 the government of India announced GST would be reduced from 8% for low-cost housing, however, there is no such details about GST mentioned in the incentives provided by Government.

Additionally, the macroeconomic indicators of the city's real estate market are a driving force behind such alliances. Therefore, any policy developed by the federal or state governments must be localised based on a variety of variables other than land prices.

Absence of Special Purpose Vehicle (SPV) facility for the Models where SPV are legal entities that separate a financial arrangement or project from a larger corporation or government entity and an SPV can help local governments complete projects sooner since the private company may have resources needed to

complete the project. Since financing infrastructure projects can be costly, a partnership allows the private company to share in the costs and revenue.

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