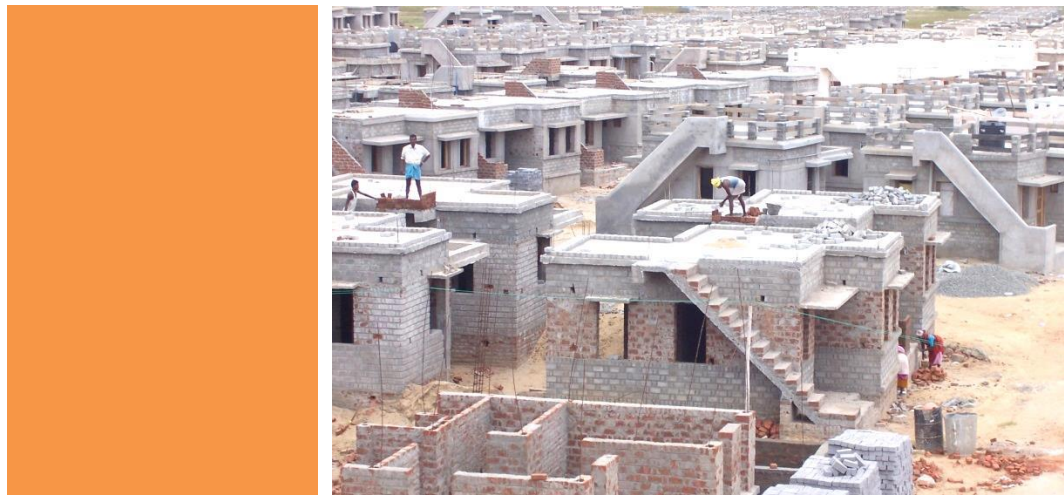


Sustainable Social Housing in India



Definition,
Challenges
and
Opportunities

Technical Report

Gregor Herda, Sonia Rani,
Pratibha Ruth Caleb, Rajat Gupta,
Megha Behal, Matt Gregg, Srijani Hazra

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MaS-SHIP

Mainstreaming Sustainable
Social Housing in India Project

MaS-SHIP (Mainstreaming Sustainable Social Housing in India *project*) is an initiative by the Low-Carbon Building Group at Oxford Brookes University, The Energy and Resources Institute (TERI), Development Alternatives and UN-Habitat, that seeks to promote sustainability in terms of environmental performance, affordability and social inclusion as an integrated part of social housing in India. MaS-SHIP is supported by the *Sustainable Buildings and Construction Programme* of the *10-Year Framework of Programmes on Sustainable Consumption and Production* (10-YFP).

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Technical peer reviewers:

Professor Amita Bhide, Tata Institute of Social Sciences

Dr Sameer Maithel, Greentech Knowledge Solutions

Professor B V Venkatarama Reddy, Indian Institute of Science

For more information on the MaS-SHIP project, please visit;

www.mainstreamingsustainablehousing.org

Or contact Professor Rajat Gupta: rgupta@brookes.ac.uk

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Research Team

Gregor Herda	Gregor Herda is an urban planner who has been coordinating the sustainable housing portfolio of UN-Habitat since 2014, including the activities of the Global Network for Sustainable Housing. His research interests include the socio-economic and financial sustainability of social housing programmes, integrated life-cycle energy analysis and application of building sustainability assessment tools in the Global South. He is currently based in New Delhi as a Regional Housing Advisor for India, Afghanistan and Sri Lanka.
Sonia Rani	Ms Sonia Rani is Fellow and Area Convenor at the Centre for Research on Sustainable Building Science (CRSBS) group under Sustainable Habitat Division (SHD) of The Energy & Resources Institute (TERI), New Delhi, India. - Her interest lies in the field of research and development, policy formulation through project implementation and incorporation of resource efficiency measures at building/campus level. She has almost 10 years of experience in different streams of sustainable development which primarily includes building materials, water & waste water management, solid waste management at both consultancy and policy levels. Under UNEP Funded project “Mas-SHIP”, she is involved in evaluating sustainability parameters to develop sustainability Index (SI) and to develop Design Support Tool (DST).
Pratibha Ruth Caleb	Pratibha is a deputy manager (Urban Research) at Development Alternatives. Her current areas of work are on policies related to resource efficiency, sustainable housing and sustainable cities. In the MaS-SHIP project she will be involved in assessing the housing projects based on social, economic and environmental parameters, as well as liasoning with the Government for greater buy-in for mainstreaming of such housing projects.
Rajat Gupta	Professor Rajat Gupta is Director of the Oxford Institute for Sustainable Development and Low Carbon Building Research Group at Oxford Brookes University (UK), where he also holds professorial chair in <i>sustainable architecture and climate change</i> . He is leading the UNEP funded MaS-SHIP project on mainstreaming sustainable social housing in India. Recently he won (with CEPT University) Newton Fund research award on <i>building performance evaluation for improved design and engineering</i> (Learn-BPE).
Megha Behal	Megha Behal is working as a Research Associate with The Energy and Resources Institute in the Centre for Research on Sustainable Building Science (CRSBS) group. Her interest lies in energy retrofits, building design optimization, performance evaluation & studies on visual comfort associated with integrated daylight systems, and sustainable building materials and technologies. Megha is team member of

the UNEP funded mainstreaming sustainable social housing in India project (MAS-SHIP).

Matt Gregg

Matt Gregg is a Research Fellow in Architecture and Climate Change, based in the Low Carbon Building Group of the Oxford Institute for Sustainable Development at the School of Architecture, Oxford Brookes University. Matt is currently involved with a 12-month project assessing the current and future overheating risk in four care homes in the UK; *Care provision fit for a future climate*.

Srijani Hazra

Srijani is a deputy manager (Habitat Solutions) at Development Alternatives. Currently she is leading the Habitat team and is involved in developing appropriate and affordable house designs for rural regions at various locations in India. Her primary focus lies in incorporating new construction technologies in housing schemes so that houses become accessible to large number of people.

Glossary of terms

Census (also called as population census) is the process of collecting, compiling, analyzing or otherwise disseminating demographic, economic and social data pertaining at a specific time, to all persons in a country or a well-defined part of a country. As such, the census provides a snapshot of the country's population and housing at a given point of time.

Census house is a building or part of a building used or recognized as a separate unit because of having a separate main entrance from the road or common courtyard or staircase etc. It may be occupied or vacant. It may be used for a residential or non-residential purpose or both. If a building has a number of Flats or Blocks/Wings, which are independent of one another having separate entrances of their own from the road or a common staircase or a common courtyard leading to a main gate, these will be considered as separate Census houses.

Census towns are places that satisfy the following criteria are termed as census towns: a) A minimum population of 5000 b) At least 75% the male main working population engaged in non-agricultural pursuits c) A density of population of at least 400 per sq.km.

Congestion factor refers to the percentage of households in which each married couple does not have a separate room to live. These are usually households with one or more married couples sharing room with a person aged 12 years or more.

Consumer price index is a comprehensive measure used for estimation of price changes in a basket of goods and services representative of consumption expenditure in an economy is called consumer price index.

Dwelling is defined as a set of living quarters. Two types of dwelling are identified in the Census:

Collective dwellings are institutional, communal or commercial in nature.

Private dwellings refer to a separate set of living quarters with a private entrance either from outside the building or from a common hall, lobby, vestibule or stairway inside the building.

Economically weaker section (EWS) households are defined as households having an annual income up to Rs 3,00,000 (Rupees Three Lakhs). States/UTs shall have the flexibility to redefine the annual income criteria as per local conditions in consultation with the Centre.

Floor area ratio (FAR) is the relationship between the total amount of usable floor area that a building has, or has been permitted for the building, and the total area of the lot on which the building stands. This ratio is determined by dividing the total, or gross, floor area of the building by the gross area of the lot. A higher ratio is more likely to indicate a dense or urban construction. Local governments use FAR for zoning codes.

Lower income group (LIG) households are defined as households having an annual income between Rs 3,00,001 (Rupees Three Lakhs and one) up to Rs.6,00,000 (Rupees Six Lakhs). States/UTs shall have the flexibility to redefine the annual income criteria as per local conditions in consultation with the Centre.

Habitat is a place or environment that is conducive to growth and provides controlled comfortable physical environment for the inhabitant.

Household is usually a group of persons who normally live together and take their meals from a common kitchen. The persons in a household may be related or unrelated or a mix of both. However, if a group of unrelated persons live in a Census house but do not take their meals from the common kitchen, then they will not collectively constitute a

household. Each such person should be treated as a separate household. The important link in finding out whether it is a household or not is a common kitchen. There may be one member households, two member households or multi-member households. There are three types of households namely:

Normal household is usually a group of persons who normally live together and take their meals from a common kitchen.

Institutional household comprises a group of unrelated persons who live in an institution and take their meals from a common kitchen. Examples of Institutional Households are boarding houses, messes, hostels, hotels, rescue homes, observation homes, beggars' homes, jails, ashrams, old age homes, children homes, orphanages, etc.

If in a building which is occupied by an Institutional Household, the families of the warden and peon are also living in separate Census houses and cooking for themselves separately, then each family will be treated as a separate household and the houses occupied by them will be treated as separate Census houses. In this situation there will be one building, three Census houses and three households, i.e., one Institutional Household and two Normal Households.

People staying in a *normal household* may be related or unrelated or a mix of both, whereas in an *institutional household* the persons are unrelated.

Houseless household do not live in buildings or census houses but live in the open or roadside, pavements, under fly-overs and staircases, or in the open in places of worship, mandaps, railway platforms, etc., are to be treated as Houseless households.

Housing demand is a market driven concept and relates to the type and number of houses that households will choose to occupy based on preference and ability to pay.

Housing need is an indicator of existing deficit. The number of households that do not have access to accommodation and are currently in homeless conditions, without a shelter /house are households that account for housing need.

Housing shortage is defined as the number of households in need of a shelter/ house and the households who need a livable house. Housing shortage includes households living in obsolescent houses, non-serviceable *katcha* house, congested houses needing new houses and households that are in homeless conditions.

Housing stock is the total number of dwelling units constructed in a defined area is defined as housing stock. This will include occupied and vacant houses

Migration rate is taken as the ratio of total migrants counted in the Census to its total population multiplied by 1000. While discussing the migration result, the term population mobility is taken as a synonym to migration rate.

Obsolescence Factor in housing is defined as the reduction in the usefulness or desirability of a house because of its outdated design feature or condition, usually one that cannot be easily changed. The first component of unacceptable housing is non serviceable units. The second component is obsolescent units which can be (a) all bad houses that are less than 40 years of age and (b) all houses aged 80 years or more

Out growth should be a viable unit such as a village or part of a village contiguous to a statutory town and possess the urban features in terms of infrastructure and amenities such as pucca roads, electricity, taps, drainage system, education institutions, post offices, medical facilities, banks etc. Examples of out growths are railway colonies, university campuses, port areas that may come up near a city or statutory towns outside its statutory limits but within the revenue limit of a village or villages contiguous to the town or city.

Pradhan Mantri Awaas Yojana (PMAY) was launched in June 2015 as a social welfare flagship program with an aim to provide affordable housing to urban poor. Under PMAY, it is proposed to build 2 crore houses for urban poor including EWS & LIG in urban areas by the year 2022 through a financial assistance of ₹2 trillion (US\$30 billion) from central government.

This Mission has four components:

- a) In-situ Slum Redevelopment with private sector participation using land as resource
- b) Affordable Housing through Credit Linked Subsidy
- c) Affordable Housing in Partnership with private and public sector
- d) Beneficiary-led house construction /enhancement.

Rajiv Awas Yojana (RAY) was an Indian government program that attempted to help slum dwellers gain appropriate housing and

address the processes by which slums are created and reproduced. It was introduced by the Indian government's Ministry of Housing and urban poverty Alleviation, which ran from 2013 to 2014. The scheme aimed to make India slum-free by 2022 by providing people with shelter or housing, free of cost.

Slum, for the purpose of Census, has been defined as residential areas where dwellings are unfit for human habitation by reasons of dilapidation, overcrowding, faulty arrangements and design of such buildings, narrowness or faulty arrangement of street, lack of ventilation, light, or sanitation facilities or any combination of these factors which are detrimental to the safety and health.

Urban agglomeration is a continuous urban spread constituting a town and its adjoining urban out growths or two or more physically contiguous towns together with or without urban out growths of such towns.

Urban area comprises statutory towns, Census towns, and outgrowths

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