



Strategic Action Plans for Rental Housing for Internal Migrants in Kochi Municipal Corporation

Rapid Response for Policy Engagement

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List of abbreviations

AP	Andhra Pradesh
ARHC	Affordable Rental Housing Complexes
CLT	Community Land Trust
DAY-NULM	Deendayal Antyodaya Yojana-National Urban Livelihoods Mission
DU	Dwelling Units
Eoi	Expression of Interest
FAR	Floor Area Ratio
Gol	Government of India
GoK	Government of Kerala
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KMC	Kochi Municipal Corporation
LIFE Mission	Livelihood Inclusion and Financial Empowerment Mission
MMRDA	Mumbai Metropolitan Regional Development Authority
MoHUA	Ministry of Housing and Urban Affairs
NGO	Non-Government Organisation
PPCP	Public Private Community Partnership
RAY	Rajiv Awaz Yojana
RfP	Request for Proposals
SMC	Shelter Management Committee
SUH	Shelter for Urban Homeless

TIG	Technology Innovation Grant
TN	Tamil Nadu
UKIBC	UK–India Business Council
ULB	Urban Local Bodies

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Executive summary

This project report details strategic action plans for ensuring access to adequate and affordable rental housing for migrant workers and migrant pavement dwellers within the Kochi Municipal Corporation (KMC). Besides an extensive literature review, this report draws upon:

- Document analysis
- Secondary case studies
- Expert discussions and consultations through organised events
- Unpublished fieldwork, previously undertaken within the Kochi metropolitan area by the author in 2019, funded by the Leverhulme Trust
- Primary fact-finding, quick-reconnaissance fieldwork, undertaken in March and April of 2021 within three locations in the KMC area – two settlements and one area frequented by pavement dwellers

The 2021 fieldwork in the KMC area shows that there were sizeable numbers of pavement dwellers in Kochi before the COVID pandemic. Reportedly, all of them are migrants and most are workers, though there are some beggars. The study within the settlements shows that the migrant population is relatively stable in Kochi settlements. Most migrants arrive as couples whose children are cared for at their home locations. Most occupy a room that is adjacent to a house of a local family with whom they may or may not share toilet facilities. Public toilets within settlements are also available to the migrant families. Water is accessed through public water taps and solid waste management systems exist. Critical issues are a degree of overcrowding in some instances, lack of building upkeep, including the presence of leaking structures, lack of environmentally safe sanitation and the threat of flooding that occurs every year. Relationships between migrants and the local population seem generally good. Four strands of strategic actions that draw upon the 2021 fieldwork results, as well as wider sources, are recommended.

Strand 1

Strand 1 focuses on facilitating private sector involvement in the provision of rental housing. This exploits the opportunity space created by the Affordable Rental Housing Complexes (ARHC) scheme of the Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI). It also draws upon the lessons and learning from the rental housing programme of the Mumbai Metropolitan Region Development Authority (MMRDA). This report is cautious in recommending too heavy an involvement in this strand for the following reasons:

- Availability of built, unallocated vacant houses in Kochi is doubtful, as envisaged in the ARHC scheme.
- Private sector uptake for the scheme is doubtful in Kochi, in our assessment due to the need for a minimum of 25 years of engagement, the eventual loss of the land and complex after 25 years (unless the operation is continued) and the generally low level of returns that can be expected.

- If there is uptake, the houses are likely to cater to the needs of the upper tier of the economically weaker section/low income group (EWS/LIG) categories or the more affluent migrant workers.
- Funds of KMC may be needed to cater to the needs of the lower tiers of the migrant workers.

However, should there be private sector interest in taking on an ARHC, facilitation by KMC is recommended as it will add to increasing the supply side of available housing stock. Additionally, KMC can develop its own ARHC directly under this scheme. Development of night shelters for migrant pavement dwellers in Kochi is recommended. This can be done in collaboration with the Labour Commiserate of Government of Kerala (GoK) as they are already involved in the building and management of accommodation for migrant workers through their Apna Ghar scheme. The Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) may be best suited for the provision of night shelters, however, as considerable central government and state government assistance is available through this mission.

Strand 2

Strand 2 focuses on a settlement-level strategy, using slum upgradation and regulation as the main approach. This builds on successful approaches in slum upgradation both locally, nationally and internationally. Four areas for intervention are highlighted: sanitation, flooding, overcrowding and building upkeep. In the context of Kochi, sanitation and flooding present a difficult technical problem due to the high ground water level, tidal actions in canals that cannot be restricted and the environmentally problematic ways of faecal matter disposal currently practised in some instances. Organisation of an international technical design bid to provide a technical solution for the problem, and/or an international technical exhibition showcasing technical solutions to the problem, is suggested. This may be organised with involvement of Deutsche Gesellschaft für Internationale Zusammenarbeit (the German agency for international development, henceforth GIZ) or any other funders, the Cochin Chamber of Commerce, or other international partners such as the UK–India Business Council (UKIBC). The Garima initiative implemented in Kozhikode District informs the recommendation for addressing overcrowding and building upkeep. A settlement-level assessment of rental houses by either KMC staff or students from any architectural school in Kerala, as part of a student project, is recommended. This can then be followed by a regulatory approach involving both incentives and penalties.

Strand 3

Strand 3 focuses on a community-level approach by constituting a community land trust (CLT) of migrant workers. A community-level approach will embrace migrants wherever they are located within KMC (not necessarily within settlements). If implemented, this would be the first CLT in India and, as a CLT targeting migrant workers, perhaps the first in the world.

The advantages of the CLT are as follows:

- Housing can be accessed at rates that are genuinely affordable, as rates are penned to income levels rather than market values.

- Housing stock is permanently accessible and affordable for the target community (here, migrant workers).
- Community involvement and decision-making is central, thereby empowering the community.
- The community can benefit from wider targeted welfare provisions.

The target migrant community must be mobilised and organised into a CLT with the help of a non-governmental organisation (NGO). The CLT will then constitute a board of directors who can take control of day-to-day management of the rental houses. Land for building CLT homes will need to be identified. Preparation of a vacant land registry for both public and private lands is therefore recommended. This can be done either by involving students from an architectural school in Kerala or by a participatory process under the leadership of ward councillors. If constituted in time, a CLT can also bid for an ARHC.

Strand 4

Strand 4 focuses on improving information flows both between landlords and tenants and between on-the-ground happenings and KMC. Working with Bandhu app providers is recommended to improve information flows. The app is provided free of cost. The company will organise an on-the-ground survey and will upload to the app the information of properties throughout Kochi, both inside and outside of colonies. This information can then be accessed by the migrant workers to compare facilities and costs. A regular reporting arrangement to KMC via particular reporting formats can be negotiated with Bandhu, again free of cost. Bandhu will charge KMC for the initial property survey and the initial uploading of information. Subsequent expenses will be charged to the landlord. General facilitation from KMC through ward councillors, access to data and a designated point of contact will be required.

A summary of the particular actions, together with possible collaborators and funding sources emanating from the four strategic approaches above, is detailed in the final section. This report recommends action on all four strands to comprehensively address the issue of ensuring adequate rental housing provision for migrant workers. Possible areas where this team might be able to assist in way of technical advice, should this be required, is also listed at the end of this section.

Section 1 Introduction and background

- 1.1 This report was prepared for Kochi Municipal Corporation (KMC). The project team was led by Professor Angelique Chettiparamb, Professor of Urban Planning and Governance at the Department of Real Estate and Planning, Henley Business School, University of Reading. Other contributors include Dr Rajan Chedambath, Director of the Centre for Heritage, Environment and Development, who was the main liaison with KMC as well as the main coordinator for events linked to this project, and Dr Benoy Peter, Executive Director of the Centre for Migration and Inclusive Development, who coordinated the rapid fact-finding fieldwork. The work was funded by the Rapid Response for Policy Engagement project of the University of Reading, United Kingdom, through the QR Strategic Fund of Research, England.
- 1.2 This project aims to recommend a strategic action plan to KMC for ensuring access to adequate and affordable rental housing for the migrant populations living within the KMC area.
- 1.3 KMC extends over 94.88km² and has a projected 2021 population of 690,000 (FindEasy, 2021). However, the metropolitan region surrounding Kochi has an extent of 440km² with a projected 2021 population of 3,193,000 (Macrotrends, 2021). Kochi is often referred to as the commercial capital of Kerala State (see Appendix: Map 1).
- 1.4 KMC-specific statistics on the number of migrant workers in Kochi is difficult to locate. A Post-Disaster Needs Assessment carried out in 2018 by the State Government states that there are 34.85 lakh (3.485 million) migrants in Kerala with the area including and surrounding Kochi accommodating 6.03 lakh (603 thousand) migrants (Shibu, 2020). Post-COVID, the Labour Commissionerate estimated a total of 92,930 migrant workers in Ernakulam District in 2,017 labour camps (Anilkumar, 2020). Reportedly, the greatest number of migrant workers in Kerala are in Ernakulam District (Shibu, 2020).
- 1.5 Precise updated information on slums in the KMC area is also difficult to access. The City Sanitation Plan published in 2011 states that there are 283 slums within KMC area (Kochi Municipal Corporation, 2011). The 2011 census states that the total number of slums in Kochi city and its outgrowth are 1,594, with a population of 5,184 (Census, 2011).
- 1.6 The rental housing sector has generally been neglected in housing policies targeting the poor in Kerala. For instance, the Livelihood, Inclusion and Financial Empowerment (LIFE) Mission, the current major programme that delivers affordable housing for the poor, exclusively targets home ownership (Government of Kerala, undated). Migrant workers are one population segment for which the provision of rental housing is necessary; state attention to ensure adequate housing for this population segment therefore remains inadequate.

- 1.7 Migrant workers do not generally wish to own a house in the place of work for many reasons. For example, the nature of the job might mean that mobility is inherent (e.g. construction workers who need to constantly follow project sites (Lonardoni & Bolay, 2016). Migrant workers, as seen in the case of Kochi, are often single men or couples who have travelled for work, leaving their children with grandparents or other extended family (Fieldwork, 2019, 2020). Cultural and linguistic differences may account for a general reluctance to migrate with family, especially when education of children and a possible loss of access to the mother tongue is at stake (Fieldwork, 2019). Migrant workers are also not without assets. Most are subsistence farmers whose land, though on its own insufficient for providing for the family, is nevertheless cultivated and does contribute to the family income. Hence any possible investment tends to target the source location where the extended family lives and where they also own assets, including a family home that is subsequently improved. Migrant workers also enjoy a stronger sense of citizenship, including access to welfare at the source locations (Fieldwork, 2019, 2021; Rao et al, 2020). All of the above creates a general sense of 'home' being in another location. This leads to a demand for adequate rental homes rather than homes to own. It is also to be noted that property prices in the cities where the migrant workers find work are generally prohibitively high, thereby ruling out the feasibility of home ownership. Cities therefore need a clear rental policy to house the migrant workers on whose labour they thrive.
- 1.8 The provision of rental housing for migrants is nevertheless an inherently complex issue, wherein poverty and culture interweave (Kumar, 2011; Naik, 2015; Scheba & Turok, 2020; UNHABITAT, undated). While issues such as affordability may be a direct result of low earnings and poverty, they can be compounded by other factors linked to migrant status. The earnings for the Economically Weaker Sections (EWS) classification is set at no more than Rs 300,000/year and for the Low Income Groups (LIG) is set at between Rs 300,001 and Rs 600,000/year (Ministry of Housing and Urban Affairs, 2020). Rent affordability is therefore low to start with. Migrant workers, however, tend to want to send home every bit of income that they can possibly save (Fieldwork, 2019, 2020). This reluctance to spend at their destination can further drive down rental affordability. The source locations of the migrant workers are often also regions already mired in poverty and deprivation. This can mean that migrant populations are more willing to 'make do' with substandard housing in the cities, especially if they see living in the city as temporary halts where they may not necessarily have a stake (Fieldwork, 2019, 2020).
- 1.9 From a landlord perspective too, the issue of rental housing for migrant workers is complex. The inherent risk of lending a house to another is amplified in the case of a migrant worker. For instance, it is possible for a renter to just disappear without paying rent. Tracking down the person could be difficult if the renter is a migrant worker. This can lead to the landlord laying down mandatory conditions for access to

rental homes, such as payment of a lump sum deposit to cover possible arrears. Unfamiliar languages of a migrant may accentuate the 'stranger' aura that accompanies a migrant and therefore lead to a heightened perceived risk. Landlords may then ask for recommendations or introductions which again constrain access of the migrant to a rental home. Finally, cultural practices of a migrant population may not be to the liking of a receiving population (such as shared use of toilets or upkeep of the rented property) leading to reluctance to rent out room to such groups. Landlords then seek to compensate for the added risk, inconvenience or upkeep, by maximising rental yield. This makes rental housing susceptible to overcrowding, low investment in maintenance, or subject to various types of non-financial conditions that also ultimately restrict access to rental property (Fieldwork, 2021).

- 1.10 Affordable housing in general might be addressed through both supply-side and demand-side policies. Supply-side policies entail initiatives that seek to increase supply of housing by undertaking house building programmes, either directly, through the public sector, or by incentivising the private sector. The increased supply of homes is then expected to bring down rental values. Often, such supply-side policies will include eligibility criteria and other conditions, as well as rental value caps that try to match provision of a housing type to the needs of intended target populations. The management and maintenance of the rental properties can be a major issue in implementing supply-side policies (Gilbert, 2016). Demand-side policies can also be pursued. Here, the rental payment capacity of a renter may be enhanced through schemes such as allocation of a housing voucher/housing benefit or other forms of grants. Essentially, these provide more choice to the renter but are very expensive and can be a drain on the public budget. It can also lead to overall increases in rents charged by landlords due to the anticipated rental supplement that renters could receive. This can drive up rental values for the population at large. Renting through NGOs, such as forms of housing associations and community organisations, is prevalent as well. Here, public funding is routed through intermediate organisations that specialise in rental property provision and maintenance. Often a bespoke mix of the above three forms (building programmes, housing grants, and renting through NGOs) is pursued, made suitable to the particular context and population segment.
- 1.11 This report is a first stage in devising a targeted approach to address the issue of rental housing for migrants in the KMC area. Four broad policy strands that can be simultaneously or independently pursued are introduced. Each of these four strands must be populated by sub-projects, calls for bids, on-site further investigations, exploration of funding options, and community work to bring the initiatives to fruition. This report attempts to broadly sketch the nature of the initiatives needed within each strand.
- 1.12 The next section details the methods adopted for collecting data and the nature of the information base that this report draws upon. The results from the primary fieldwork

carried out in Kochi in March and April 2021 is then presented, followed by four sections, each of which elaborates on one strand. The four strands discussed cover:

1.12.1 Private sector involvement and facilitation

1.12.2 Upgrading and regulation

1.12.3 Facilitation of a community land trust

1.12.4 Connecting landlords to renters

Sections on each of the four strands also detail case studies and policies, where relevant, that have informed the recommendations made. The final section summarises the recommendations from the four strands.

Section 2 Methods

2.1 This section details the methods and data sources that have informed this report. Besides an extensive literature review to understand the general underlying market dynamics of rental housing, and housing for migrants in particular, the report draws upon context specific secondary and primary data collected at national, state and local levels. A primary unpublished fieldwork, constituting in-depth interviews with migrant workers working in different occupations completed by the author in 2019 within the Kochi metropolitan area but outside the KMC area, has also informed the writing of this report. Data for the current project was collected from:

- 2.1.1 Document analysis
- 2.1.2 Secondary case studies
- 2.1.3 Expert discussions and consultations
- 2.1.4 Primary fact-finding, quick-reconnaissance fieldwork within three locations in KMC area

These are detailed below.

2.2 Document analysis involved reviews of:

- 2.2.1 housing policies, e.g. the Affordable Rental Housing Complex (ARHC) scheme and the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) of Government of India, the Apna Ghar project of the Labour Commissionerate, Government of Kerala and the Life Mission project, Government of Kerala
- 2.2.2 newspaper reports on migrant issues and on particular initiatives undertaken within Kerala, such as the Garima project
- 2.2.3 website analysis, e.g. Labour Commissionerate, Government of Kerala; the Housing Commissionerate, Government of Kerala; and the Kerala State Housing Board

The ARHC scheme is a national-level initiative of the Ministry of Housing and Urban Affairs, Government of India, specifically designed to provide housing for migrant populations. The Apna Ghar scheme is a state level scheme also specifically designed to provide housing for migrant populations. The LIFE Mission project is a consolidation of various housing initiatives targeting all those without a house (or land for a house), aiming to ensure housing security for all.

2.3 Experiences from case studies have also informed the recommendations made in this report. Cases were drawn from within Kerala, within India and beyond India. They have served to both inform the possibility of a strategic action initiative as well as

inform the details of how an initiative might be implemented. The case studies that have been explored include the following:

- 2.3.1 Rental housing initiative of the Mumbai, Metropolitan Region Development Authority (Adusumilli, 2021)
- 2.3.2 Slum networking project in Ahmedabad (Das & Takahasi, 2009)
- 2.3.3 Cooper Square Community Land Trust in US (Angotti, 2007)
- 2.3.4 London Community Land Trust in UK (Chettiparamb, 2021)
- 2.3.5 Tanzania-Bondeni Community Land Trust in Voi, Kenya (Bassett, 2005; Bassett & Jacobs 1997)
- 2.3.6 Garima initiative of Kozhikode District administration, Kerala (*Times of India*, 2017, 2018; *The Hindu*, 2019, 2020)

Information on case studies were collected through: secondary reports/publications accessed online; presentations from experts involved in the initiatives or those who had studied the cases first-hand; and through newspaper reports.

- 2.4 Expert inputs were collected through organisation of three events and from feedback on drafts of this report. The first event involved a stakeholder consultation workshop where the following were present (see Appendix: Image 1): experts from Kerala State Planning Board; the Mayor of KMC; elected Standing Committee Chairpersons of the five Standing Committees of KMC (covering health, welfare, finance, town planning and works); officials from KMC and local-level officers from the Town and Country Planning Department, Kerala State Housing Board, Greater Cochin Development Authority, Labour Commissionerate and National Health Mission. The discussions helped explore the issue of migrant housing in KMC.

The second event involved a webinar showcasing six speakers and a selection of subject experts invited to discuss the presentations. The presentations and discussions have contributed to the identification and shaping of the four strands that are presented in this report. This report was also shared with the invited speakers and further inputs were incorporated. The final event involved an online webinar, where a draft of this report was presented to the Mayor of KMC and a selection of officials and presenters from the initial stakeholder workshop.

The final event had to be substantially scaled down due to the pandemic, when councillors and officials were involved in relief measures. Feedback and queries rising from the final webinar have been incorporated into this report to further clarify the proposed strategic actions.

- 2.5 This report also drew upon unpublished data emanating from the primary fieldwork conducted by the author in June–September 2019 (before the COVID-19 crisis). The project was funded by the Leverhulme Trust and involved in-depth interviews with

migrants in different occupational sectors. The workers interviewed were both formally and informally employed. They were drawn from the plantation sector (cardamom plantation – outside the metropolitan region of Kochi); factories (a plywood factory and a textile factory within metropolitan Kochi) and domestic helpers and hired help on daily wages ('footloose' workers within metropolitan Kochi). They were from the states of: Madhya Pradesh, Odisha, Andhra Pradesh, West Bengal, Assam, Jharkhand and Tamil Nadu. Of these, the footloose workers from Tamil Nadu were pavement dwellers; the workers in the formal sector (plantations, plywood and textile) were mostly living in accommodation provided by the employer, with a few renting from local private landlords; and the domestic workers were mostly living in accommodation provided by private landlords. The focus of data collection was on the networks of migrants with their home locations.

- 2.6 The fieldwork for primary data collection for this project took place in March and April 2021. At the time of fieldwork, the COVID-19 situation in Kerala had not yet peaked. Nevertheless, interviews and focus group discussions were conducted wearing masks, while social distance was maintained when interviewing migrants from different households (see Appendix: Image 2 and 3). Informed consent was audio recorded due to both illiteracy of some migrant interviewees and to avoid contact due to the COVID-19 situation. Ethics approval for the primary fieldwork was obtained through the University of Reading ethics approval process.
- 2.7 Quick-reconnaissance, fact-finding fieldwork was undertaken to understand the nature of location-specific issues in Kochi. The fieldwork focused on Vaathuruthy and Udaya Colony as well as pavement dwellers in the Kaloor area of KMC. The locations were identified based on local knowledge of project partners as well as discussions with local officers in KMC. The field work involved
 - a) one-to-one interviews with the local population including councillors, ex-councillors, landlords and community workers who lived with or had close ongoing contact with the migrant workers in the chosen location
 - b) one focus group discussion with migrant workers in Vaathuruthy, representing male Tamil migrants, and one focus group discussion with female migrant workers from Andhra Pradesh in Udaya Colony
 - c) interviews with service providers (such as public toilet attendants and local teashop owners) in the vicinity of Kaloor junction as well as one male pavement dweller from Andhra Pradesh at Kaloor junction. Length of key informant interviews varied between 25 and 50 minutes each and length of focus group discussions averaged 30 minutes. Key informant interviews, except the one with the one pavement dweller, were conducted in Malayalam, the mother tongue of this author. Recordings of the interview were played back with important themes and points noted. Tamil and Telugu interviews were translated and transcribed and were therefore accessed as

transcribed text. Questions arising from the audio recordings were thereafter further probed directly with the two field researchers over two Microsoft Teams meetings of around 30 minutes each. Key themes emerging from the fieldwork were also highlighted and discussed in these meetings. The draft of this final report was also shared with the two field researchers for verification.

- 2.8 The next section discusses the results from the primary fieldwork conducted for this project. This serves to establish some of the ground realities regarding migrant workers and access to rental housing in KMC, before the recommendations are introduced and discussed.

Section 3 Results from the rapid fact-finding fieldwork

- 3.1 Migrants from multiple locations can be found in both Vaathuruthy and Udaya Colony, and among the pavement dwellers at Kaloor junction. They are mostly from Tamil Nadu (inclusive of migrants that have come to Kerala long ago) and Andhra Pradesh,¹ and a few are from the Northern states as well.
- 3.2 The migrant population in the colonies is more or less stable. Some have been living in the colonies for years. Most migrants arrive as couples, leaving their children at home in source locations. They are cared for by extended family members often involving grandparents and sometimes even boarding schools. The children go to school in their source locations and often visit Kochi during holidays. The older teenage children also work when they visit Kochi during the holidays. A few families live with children, these children tend to be very young. Still fewer are educating their children in schools in Kochi.
- 3.3 The landlord is not significantly well-off in comparison with the renters. In fact, the local population perceive that the migrant renters may in fact be better off as they often have substantial land back at home locations and they are willing to engage in rigorous, but higher paid work (such as concreting, or work in drainage or sanitation). There was mention of assets back home, including good access to education for their children, assets for household consumption such as a fridge or TV at their home location.
- 3.4 Migrant couples tend to occupy a room in a house owned by a local person. They also, at times, occupy a whole house, sharing it with other migrant families. These wholly occupied shared houses tend to be old, tiled houses in relatively poor condition. The one-room space accommodates all needs of the family, including cooking, storing of meagre possessions and sleeping (see Appendix: Image 4). The rooms are generally separated from the main house with a separate entrance.
- 3.5 Toilets are often separate but can also be shared with the landlords. Most toilets are reportedly connected either to a septic tank or soak pit. The area is, however, prone to frequent flooding and, thus, the presence of soak pits inevitably means ground water contamination. It was also noted that some households are discharging faecal waste directly into the canal. The canal is subject to tidal action and thus waste gets flushed out through this tidal action.

¹ Undivided Andhra Pradesh (AP). Respondents report that they are from Andhra Pradesh, but it is possible that they might be referring to undivided Andhra Pradesh including current AP and Telangana.

- 3.6 One of the main issues faced by households in the area is flooding and lack of adequate drainage. The colony floods frequently, especially in recent years, possibly due to climate change. Flooding occurs by way of back flow of water through the canals which then overflow into the colony. There are also reports of water levels rising in toilets.
- 3.7 Water is sourced from public taps. However, some wastage of 'free' water is reported, mainly by migrants. The rooms have access to electricity (mainly a bulb). The migrants may supplement this with a fan or any other equipment if they want to, but this is rare. Cooking is generally on a kerosene stove, which is often fuelled by diesel. Mostly cooking is done only once in a day when workers come back from work. Lunch tends to be sourced from outside, either bought or sometimes provided by employers, especially when workers are engaged in concreting work.
- 3.8 Compliance by the migrant household with waste disposal practices is reported by many to be difficult. Migrant households are charged a reduced rate of Rs 50/week, while others are charged Rs 150/week. The difference in rate is mainly because waste production by migrants tends to be significantly low. Reportedly there seems to be a general reluctance amongst migrant workers to pay the waste disposal fee and join in waste collection efforts. Local perception is that this might be a cultural issue as the rural locations that most migrants come from do not have such practices and therefore there is a hesitation to pay for them.
- 3.9 Instances of overcrowding were witnessed by field staff. For example, an instance of a couple living together with five single women in a room of around 100ft² was noted. There are also instances of poor building upkeep – as, for instance, roof leaks. Some of the upkeep issues are also due to the frequent flooding that the area is prone to.
- 3.10 Single men also arrive as migrants. Single unaccompanied women arrive in groups from a single location. They then rent a space in a dormitory-like facility where they are entitled to a space and perhaps a mat to lie on. Electricity, water and toilet facilities are provided. These 'dorms' are often provided on terraces of existing buildings that are rented out, and workers live under sheeted roofs on the terrace. Single women groups may rent a room attached to a house and share the same. Dormitory facilities are also provided by charities working in the area. In both Vaathuruthy and Udaya Colony there are dormitories wherein around 10–12 migrants live, paying a daily rent.
- 3.11 Accommodation is accessed through personal networks. Landlords tend to only lend to those migrants who someone – a known migrant worker or another resident – has vouched for. There is no difficulty at all in renting out units as they are constantly in demand. Landlords ask for ID cards (often the Aadhaar identification number, but also voter ID in some cases). Copies of these are passed on to the local police station too. The police sometimes come to the colonies to check the IDs of migrant workers. Some

employers have also rented rooms in the colony for their workers. Colony landlords tend to live inside the colony. A few previous colony residents have moved out and, in these cases, they have retained their houses in the colony and rented them out. Other than these few cases of non-resident landlords, there are no absentee landlord or sub-contracting practices in the colony.

- 3.12 For most landlords, renting a room is a supplementary income that adds to their main source of income and stabilises revenue to some extent. Rental incomes can contribute to the pay back of loans, enable landlords to rent a better accommodation elsewhere, where they can then move to, and sometimes also provide a much-needed source of income for those with no other source (such as single mothers or disabled people who cannot work). Very few have multiple houses that they rent out purely as a business venture. There are also reports that those landlords who receive an EWS/LIG new house under the Pradhan Mantri Awas Yojana scheme may decide not to rent out their new houses anymore. Aside from the hesitancy to rent out the new homes, this can also be explained by the fact that the new houses have very little space for construction additional rooms, as they are built on $\frac{3}{4}$ or 1 cent of land.
- 3.13 Migrant workers tend to earn in the range of Rs 900–1200 per day, depending on the type of work they do. The work, however, may not be continuous throughout the month. Most migrants in these colonies work in the construction sector and they are willing to travel short distances up to Alappuzha, Kottayam or Thrissur for work. If they travel further away, they tend to stay in accommodation provided by the employer during weekdays when they are working and then come back to the colony on weekends.
- 3.14 Housing costs around Rs 1,500–2,500 per room per month on average, depending on the size of the rented room and facilities provided. Usually, rents for three months are collected as advance, together with ID proofs. When a room is rented, full rent is charged for all 12 months of the year, regardless of any travel back home for short visits. Tamil migrants tend to go home for short visits such as for a weekend. The visits are around festivals, such as Pongal, during harvesting seasons and for other family occasions. Single migrant workers rent a space in the dormitory on a daily basis for around Rs 10–15 per day. In these cases, they vacate and do not pay for the space when they go home. Migrant workers from Andhra Pradesh go home for longer periods, which tend to coincide with harvesting. Most migrant workers have some land in their home locations, but they are involved in subsistence farming where the produce is not enough to sustain the family. Travel home for the Tamil population in Vaathuruthy is mainly by private bus providers who run a door-to-door bus service every day from Vaathuruthy to Tamil Nadu. For those from Andhra Pradesh, the train is the main form of travel to and from home locations.
- 3.15 Migrants from Tamil Nadu who travel back and forth more often tend to take the money earned with them back home, where they deposit it in banks or spend it.

Migrants from Andhra Pradesh and other locations now use electronic money transfer mechanisms. Where a long-standing relationship has developed, some also entrust money to their employers or landlords for safe keeping.

- 3.16 Relationship between the migrants and the landlords are said to be, in the main, healthy, cordial and inclusive in Vaathuruthy Colony. There is exchange of food during festivals and even some holiday visits to the migrants' home locations by local landlords. There are therefore few reports of fights between the local population and the migrant population in Vaathuruthy. However, brawls among the migrant populations is reported to be frequent, often requiring the intervention of the local population. Also, cases wherein migrants are encouraged to buy groceries or provisions from a landlord's shop in the vicinity were reported. However, the landlords also intervene and speak to employers on behalf of the migrants if wages are not paid on time or when they had any other significant problem that needed local help. The situation seems to be different in Udaya Colony however. Here, there have been instances of fights between the local population and the migrant workers, which required serious outside police intervention. Some instances of sexual exploitation and harassment of women by both local populations and employers were reported. Single women also reported suspicion and name slurring by members of their own community.
- 3.17 A sizeable population of migrants from Tamil Nadu have chosen to settle in Kerala. They would have come originally as workers, but then eventually started small businesses, bought houses and settled. Those from Andhra Pradesh tend to want to return and mostly have travelled for the work alone.
- 3.18 It is not entirely clear why the pavement dwellers choose to live on the streets. They are all footloose workers, but may also be attached to particular employers. The pavement dwellers tend to use the pay-and-use toilet facilities at the bus stand. For bathing, they travel to Aluva to bathe in the river. The pavement dwellers tend to buy their food or receive food from their work site from employers. Most go for work, though reportedly there are some beggars too among this population. When there is no work, the migrants tend to sleep off the day. Significant alcohol-related street brawls between the migrants are also reported. Sometimes these can get serious and then the police are called in by an onlooker.
- 3.19 While working, pavement dwellers store their meagre possessions with shop owners or relatives with rented rooms. In the 2019 fieldwork, it was found that pavement dwellers are often single men who choose to live on the streets to save on rent so they can then send the money home. That study found that pavement dwellers have formed relationships with shop owners, some of whom keep their belongings safely when they are out on work.

- 3.20 Reportedly there used to be a significant number of couples as pavement dwellers in the streets at Kaloor. There were reports of single men and women too. There were also conflicting claims of involvement in prostitution, which we did not explore further in our fieldwork as this quick fact-finding fieldwork was primarily exploring housing issues. After the COVID-19 epidemic, few among the pavement dwelling migrants had returned. At the time of data collection, their numbers were significantly less. It must be noted that this fieldwork took place just before the current second wave of the pandemic.
- 3.21 All three locations of our study reported that there was no dearth of food during the epidemic. Food packages were delivered through the local government, charities and other organisations, such as the Port Trust. Local populations also claim to have helped migrants in finding transportation that would allow them to travel back home, such as connecting them to lorry drivers carrying goods on the roads. Rent on housing was waived for some accommodation. Some landlords did not agree to waive the rent, however, as they were dependent on this income. In these cases, a deferred payment scheme was agreed wherein rent arrears would be paid when possible, over a long period of time.
- 3.22 The next four sections detail four possible strategic action approaches. It also presents the policy analysis, case study review and results from secondary sources that have informed the approaches. An indication of further work needed in each strand and possible funding sources to be explored are also included.

Section 4 Strand 1: Private sector involvement and facilitation

4.1 This policy brief was prepared by examining the national level policy space – in particular, the Affordable Rental Housing Complexes scheme (ARHC), which opens up an opportunity space for KMC to act. The ARHC is compared to the rental housing scheme promoted by the Mumbai Metropolitan Regional Development Authority (MMRDA) in 2008. The comparison allows an appreciation of how the ARHC improves upon some of the MMRDA scheme parameters that led it to fall short of its aspirations. The Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) was also studied as it provides for substantial central government assistance for housing pavement dwellers. The proposed action plan for Kochi draws upon an understanding of the opportunity space created by ARHC and DAY-NULM, the learnings from the rental housing scheme of MMRDA (Adusumilli, 2021) and the insights from the local context of Kochi, drawn from the stakeholder workshop, from fieldwork among migrant populations and from the documents of the local and state government departments operating in the KMC area.

Summary of salient general features of the ARHC scheme (Ministry of Housing and Urban Affairs, 2020)

- 4.2 Model 1 of the ARHC scheme is a centrally sponsored scheme. It allows for utilisation of vacant housing already developed by parastatals and conversion of the same into affordable rental housing. Industries, trade associations, manufacturing companies, educational/health institutions, development authorities, housing boards and central/state public sector undertakings can construct affordable rental housing under this scheme.
- 4.3 Model 2 of the ARHC scheme is directly run by the central government (a central sector scheme). Here the Ministry of Housing and Urban Affairs (MoHUA) will issue a call for expressions of interest (EoI) calling for submissions through the ARHC website. Current deadline for EoI is 30 June 2021, though the scheme will continue until March 2022.
- 4.4 Proposals made under both the above models will need to run for a minimum period of 25 years. Housing can be provided by entities for their own workers and others. Rent can be deducted directly from remunerations paid to the workers.
- 4.5 A technology sub-mission provides for the Technology Innovation Grant (TIG) to facilitate adoption of innovative, sustainable green and disaster-resistant technologies and building materials. Such grants of Rs 1,00,000 per double bedroom unit, Rs 60,000

per single bedroom unit and Rs 20,000 per dormitory, will be released by the ministry for projects using identified innovative technologies.

Summary of Model 1: Utilising existing government-funded vacant houses

- 4.6 A draft Request for Proposal (RFP) for initiating schemes under Model 1 has been prepared by the central government. This is available here:
http://arhc.mohua.gov.in/filesUpload/RFP_ARHC.pdf
- States can customise and publish the RFP through the state e-procurement portals and the Gol e-procurement portal.
- 4.7 Concessionaires are to be selected through transparent bidding processes, with rent and period of concession as fixed parameters. Bidding is based upon highest positive premium² to ULBs or lowest negative premium through viability gap funding³. States/ULBs can utilise funds released under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and Rajiv Awas Yojana (RAY), with their own funds to bridge any viability gaps.
- 4.8 The assets (land and building) will be transferred to Urban Local Bodies (ULBs) after 25 years, upon which the ULB can operate the complexes on their own or start a new bidding process.
- 4.9 Rent is to be fixed by the local authority based on local survey, prior to RFP. Rent can be subsequently enhanced biennially by 8% subject to a maximum of 20% in aggregate over 5 years.
- 4.10 Concessionaires must provide necessary social and commercial infrastructure and amenities specified by States/ULBs.
- 4.11 A package of incentives has been declared:
- 4.11.1 From central government:
 - 4.11.1.1 Exemption from income tax
 - 4.11.1.2 Exemption of goods and services tax (GST) on profits derived from the operation of ARHC
 - 4.11.1.3 Project finance/loan at lower interest rate

² Bidders have to share profits with the ULB. The highest positive premium is the highest amount that they can share with the ULB.

³ If the rents are fixed at a low level to make it affordable to the migrant population, then the 'viability gap funding' is the amount that the ULB has to pay to the bidder to allow them to operate the facility. The lowest negative premium is the lowest amount the ULB has to pay to the bidder.

- 4.11.2 From state government:
 - 4.11.2.1 Single window for approvals
 - 4.11.2.2 Trunk infrastructure (for road, sanitation, drainage, etc)
 - 4.11.2.3 Municipal service (water, electricity, property tax, etc)
- 4.11.3 The incentives are available to states/ULBs that utilise vacant housing developed from their own funds and convert them into ARHCs under public-private partnership (PPP) mode or by public agencies.

Summary of Model 2: Construction, operation and maintenance of ARHCs by private/public entities on their own available vacant land

- 4.12 Applications are to be made against EoI issued by MoHUA. EoIs are to be downloaded by states/ULBs for shortlisting the entities against eligibility criteria defined in the EoI. Shortlisted entities are to submit a Detailed Project Report (DPR) to ULBs for further processing with a copy to the ARHC website. Entities chosen must construct, operate and maintain the ARHC on their own land for 25 years.
- 4.13 Each ARHC must have *at least* 40 dwelling units (DUs). DUs can be double bedroom/single bedroom or equivalent dormitory beds. One single bedroom of up to 30m² is equivalent to three dormitory beds. There is a ceiling: a maximum of a third of total DUs as double beds in one ARHC.
- 4.14 The bidding entities can fix the initial affordable rent based upon local surveys. Rent can be subsequently enhanced biennially by 8%, subject to a maximum of 20% in aggregate over five years.
- 4.15 Bidding entities can form partnerships for land/project financing or management. They can also form partnerships with other entities/organisations, such as employers, to ensure sustained occupation of units built.
- 4.16 There are specifications for sizes and amenities to be provided (see Table 1).

Table 1 Dwelling unit specifications

Type of DU	Carpet area (m ²)	Unit structure	Ratio under ARHCs
Single bedroom	Up to 30m ²	1 bedroom, living room, kitchen, bathroom, toilet etc	Ratio of DUs and dormitory beds may vary as per project requirement
Dormitory	Up to 10m ²	Separate bed, side table, shelves, lockers, common facilities or kitchen, toilet etc	
Double bedroom	Up to 60m ²	2 bedrooms, living room, kitchen, bathroom, toilet etc	A maximum of one-third (33%) of total DUs in the project is permissible as ARHCs

4.17 In addition to incentives declared earlier, the following **additional incentives** are to be awarded.

4.17.1 Central government incentives:

4.17.1.1 Technology Innovation Grant (TIG) will be provided for identified innovative technologies to expediate construction and delivery.

4.17.2 State government incentives:

4.17.2.1 'Use permission' changes must be permitted for residential use on vacant land

4.17.2.2 50% additional Floor Area Ratio⁴ free of cost

4.17.2.3 Single window system for approval of design/drawings and other statutory approvals within 30 days

Monitoring and evaluation

4.18 A central, sanctioning-cum-monitoring, high-level committee for 'housing for all' mission will be constituted.

4.19 Mid-term evaluation will be carried out by MoHUA and a social audit will be conducted through a third party selected by MoHUA.

⁴ Floor Area Ratio is the maximum buildable area on a plot of land. So a FAR of 2 means that 2 times the area of the plot of land can be built up.

4.20 A state-level, sanctioning-cum-monitoring, high-level committee for 'housing for all' mission is to be constituted.

4.21 ULBs/parastatals will be responsible for overall management of the ARHC projects, including listing of all projects. The concessionaire/entity will submit a 'project compliance report' to the ULB on a quarterly basis.

Comparison with the rental housing scheme of Mumbai Metropolitan Regional Development Authority (MMRDA)

4.22 The information of the MMRDA scheme draws upon the presentation given at one of the events organised as part of this project – in particular, the presentation given by Ms Uma Adusumilli, Former Chief Planner of MMRDA, followed by a one-to-one interview with this author.

4.23 The MMRDA rental housing scheme is a good pre-cursor to the current ARHC scheme. The scheme aimed to provide affordable rental housing by incentivising the private sector. Comparing features of the ARHC to the MMRDA rental housing scheme allows for an appreciation of where the opportunities and pitfalls may be for Kochi in stepping into the opportunity space, detailed above, created by the ARHC.

4.24 The main parameters that differ, together with issues for Kochi, are summarised in Table 2, below.

Table 2 MMRDA and ARHC scheme comparison

No	MMRDA scheme	ARHC scheme	Remarks
1	<p>Viability of the affordable rental units are met by incentivising cross-subsidisation and higher FSIs. FSIs of 4–20 times higher than the status quo were granted if rental housing schemes were proposed. Proportion of commercial FSI to rental units for the poor was in the ratio of 3:1.</p> <p>Government land would have 75% reserved for rental housing and 25% for commercial use. Private sector land would have 75% reserved for commercial use and 25 % for rental housing.</p>	<p>Project viability is through financial incentives including income tax exemption, GST exemption and additional 50% additional FSI for new complexes under Model 2.</p> <p>Illustrative, detailed feasibility calculations are provided in the published scheme guidelines.</p>	<p>Whether the market will respond to the incentive provided in the ARHC scheme is yet to be seen.</p> <p>Compare 400% additional FSI⁵ in urban Mumbai Metropolitan region and 2000% additional FSI in rural Mumbai with proposed 50% in ARHC.</p> <p>It could be argued that the MMRDA scheme overly incentivises private sector involvement. Ultimately this would be a matter of market response.</p>

⁵ FSI is Floor Space Index and is the same as FAR.

2	The rental component is to be completed before the commercial part. The rental component is then handed over to MMRDA free of cost, upon completion of the rental housing scheme.	Long-term involvement of the promoter is required, as they need to run the facility for a minimum of 25 years before hand over of land and building to ULB.	The long-term commitment may be necessary for project viability, but it could be a deterrent for market involvement , as can the eventual loss of private land.
3	Size of single-room tenements mandated was 14.8m ² carpet area.	Size of single room tenements mandated is 30m ² carpet area.	The MMRDA Scheme settles on inhumane standards for a family of four who would presumably occupy the single unit tenements. This also resulted in unviable densities. Issue of standards is resolved in the ARHC.
4	Significant minimum overall density of 2,100 tenements/ha.	No guidelines on minimum density to be achieved.	Given the more modest FAR regulations and space standards in the ARHC scheme, there may not be a danger of overcrowding if standards are maintained. Kochi may need to provide oversight to ensure that the standards are maintained.

5	Eligibility restricted to migrants only, with a domicile of 15 years in Mumbai area.	Scheme is opened to migrant workers, EWS and LIG workers. No domicile requirements.	Inclusion of EWS and LIG workers from the local population can promote mixing of populations and help address any local population backlash. Kochi, if implementing the ARHC scheme, will need to decide on the allocation of units between migrants/EWS/LIG families as well as decide who a 'migrant' is.
6	Employment could be in both formal and informal sectors, but earnings of a minimum income of Rs 5000 per month is required, with no maximum income limits.	EWS is defined as anyone who earns a maximum income of up to Rs 3,00,000 per year (Rs 25,000 per month). LIG is defined as anyone who earns between Rs 3,00,001 and Rs 6,00,000 (Rs 25,000–50,000 per month).	Kochi can define the income range for the ARHC scheme. If the range is too generous, it can potentially lead to housing for those in the higher brackets, thereby sidelining the more needy migrant populations.
7	Infrastructure was to be provided by Urban Local Bodies in their jurisdictions and by MMRDA in the rural areas.	The states/ULBs/parastatals will need to provide necessary infrastructure.	Kochi may need to consider infrastructure availability before planning permission is granted. Demarcating possible sites with infrastructure available and demarcating zones where site development should not be

permitted may be one way forward in implementing the ARHC scheme.

8 Despite significant concessions to the private sector, the expected number of tenements were not built.

Housing stock was, in the end, handed over to institutionalised, formal workers. They were also given to (for ownership, rather than as rental units) project-affected persons who were promised rehabilitation. Some also became COVID-19 quarantine centres.

Scheme is just starting implementation.

The drastic compromise on standards in the MMRDA scheme affected the liveability of houses, leading to unviable homes.

Kochi must strike a realistic balance between affordability (market) and liveability (welfare), and formulate clear and realistic objectives in implementing the ARHC scheme.

9	Management of stock was considered problematic.	The concessionaire will manage the ARHC, with oversight by the ULB.	Effective oversight over management of the facility by the concessionaire will be needed. Kochi will need to formulate a monitoring system and a system to incentivise maintenance. It will also need to provide training on how to become a good tenant.
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10	Apprehensions about collection of rent, the right to evict and the maintenance of adequate standards are reported.	Model tenancy agreement is in preparation by MoHUA. There is also provision for suspension of state rental laws for implementing the ARHC scheme. Right to evict a tenant is guaranteed to the concessionaire should tenancy agreement be violated. Processes of grievance redressal are to be set up at state/city level.	Kochi will need to formulate grievance redressal and arbitration routes.
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11	No welfare support is provided to tenants, other than mandatorily creating spaces for welfare centres and balwadis (pre-schools for children of economically weaker sections of society).	None are explicitly stated.	Kochi will need to consider complementing housing provision with ancillary services, such as insurance, health support, money management, 'good tenant' training and other types of support.
12	No incentives for promotion of sustainable or efficient technologies in the construction of rental houses.	Defined incentives allocated to identified innovative technologies.	Kochi can consider actions to facilitate uptake of innovative technologies if there are enough bidders from Kochi for the Central Sector scheme – e.g. technology exhibition, liaison with Cochin University for technology vetting, etc

Strategic considerations and actions for promotion of migrant rental housing in Kochi

- 4.25 Whether the market will respond to the call for EoI issued by the GoI within Model 2 of ARHC cannot be predicted. The Mumbai case study shows that uptake by the private sector comes only with substantial concessions. KMC will need to be careful about not compromising on migrant welfare, as well as about not providing unrealistic FAR levels, as was done in Mumbai. It is worth noting that even with the impossible levels of concessions that led to inhumane units, Mumbai did not achieve the aimed for number of flats. There is therefore reason to be cautious of expecting substantial private sector uptake.
- 4.26 The private sector, if interested, will be likely to cater to the upper income range in the specified income brackets. This should still be welcomed as it will lead to the creation of housing stock, which can alleviate pressure on available units and thus make housing slightly easier to access for those of lower income. Initiatives in this strand are not likely to *directly* help those on lower incomes otherwise.
- 4.27 KMC will need to be careful about overly subsidising this strand as the clientele for this is not likely to be the most needy amongst the migrant population. Any budgetary allocation must be prioritised to Strand 2, 3 and 4 interventions, as detailed in the next sections of this report.
- 4.28 Since the income range specified is quite wide (up to Rs 50,000/month), it is likely that there may be local demand from non-migrant workers for at least double units. This is not in itself a problem as it will allow for some level of intermingling between local and migrant populations. The ARHC, however, curbs double bed units to a maximum of one-third of the total units.
- 4.29 If there is considerable private sector interest, KMC will need to take the following actions to facilitate the private sector:
 - 4.29.1 Initiate a unit to oversee the construction, maintenance and welfare of the migrant workers in the ARHCs. Alternatively, this task might be entrusted to an existing unit, such as the Kochi Smart Cities Mission, or KMC might decide to jointly work with another government department, such as the Labour Commissionerate, which is already involved in providing housing for migrant workers. The new or existing unit can then do extension work with the welfare department to ensure that migrants can access relevant schemes, e.g. GoK migrants insurance scheme, grievance redressal mechanisms, etc
 - 4.29.2 Fix affordable rental levels. The fieldwork indicates that affordable rental levels are in the range of Rs 1,500–2,500/month for a room and Rs 10–15/bed for a dormitory.

- 4.29.3 Decide on possible land for an ARHC – and also zones, if any, wherein an ARHC should not be built due to the additional FAR provisions. If relevant, make provisions for augmenting infrastructure available on site.
- 4.29.4 Decide on eligibility for access to an affordable house. The ARHC policy allows ULBs to decide on income ranges that would be eligible. This would make the houses available to local populations as well. A local definition of a ‘migrant’ for the purpose of access to these homes can also be adopted if required. Ensure fair allocation policies are pursued in the ARHC.
- 4.29.5 Close monitoring to ensure that the scheme is built and, importantly, maintained as proposed. Include provisions for revising relevant aspects of the scheme, if required.
- 4.30 The scheme could be taken up by a government agency or parastatal. KMC might want to consider working with current schemes provided by the Labour Commissionerate via their Apna Ghar scheme to see if the Bhavanam Foundation (owned by Department of Labour) might be interested to work with KMC using ARHC funds. Building of a night shelter, to address the issue of pavement dwellers in particular, is to be facilitated.
- 4.31 KMC might also want to consider directly taking up the building of a complex (rather than work through other agencies). If so decided, KMC staff might need to run the shelter complex directly or lease particular tasks to NGOs or other service providers. Building a night shelter, to address the issue of pavement dwellers in particular, is strongly advised. Funding for this can be sourced from the DAY-NULM (MoHUA, 2015) scheme detailed below (see sections 4.33 to 4.35).
- 4.32 If either of the options in 4.29 or 4.30 is to be considered, KMC will need to watch out for bidding deadlines on the ARHC website. The current bidding closes on 30 June 2021, but there may be further bidding cycles as the scheme operates until March 2022.
- 4.33 For Model 1 (repurposing vacant housing), Kochi will need to take steps for repurposing government funded vacant houses (built under RAY and other government schemes).
 - 4.33.1 KMC will need to ascertain whether there is any available vacant stock for houses built under RAY and other government schemes. The stakeholder workshop conducted suggests that there are no such vacant houses; this will need to be confirmed. Since these houses are smaller, investors for at least some houses may come forward, if such vacant houses exist.
 - 4.33.2 Kochi will need to issue a call for EoI for repair/retrofit/develop/operate/transfer of these vacant units, as specified in the ARHC scheme.

Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) scheme for provision of Night Shelters (MoHUA, 2015)

- 4.34 For building the recommended night shelter, KMC might also consider provisions under the DAY-NULM scheme. According to the Scheme of Shelter for Urban Homeless (SUH) within this mission, every urban area must make provisions for 100 permanent community shelters for every 1 lakh (100,000) urban population, with each shelter catering for 50–100 persons. Urban areas of more than one million population in the 2011 census will be given priority.
- 4.35 A minimum space of 50ft² or 4.645m² per person is proposed, and these are to be managed by a Shelter Management Committee (SMC) or through a Public–Private Community Partnership (PPCP). A nominal charge ranging from one-tenth to one-twentieth of the income of the beneficiaries can be charged and utilised for the maintenance of the unit. For those who cannot pay, total exemption may be provided.
- 4.36 Government of India will fund 60% of the cost of construction of these shelters. State government is to fund the remaining 40%. Operation and management costs for five years will also be provided, along the above lines, for a split in the ratio of 60:40. Cost of land will be counted towards the 40% contribution.
- 4.37 Since considerable funding is available through this DAY-NULM scheme for night shelters, KMC might consider sourcing finance from this scheme rather than the ARHC scheme.
- 4.38 The next section discusses Strand 2, regarding upgradation and regulation of existing accommodation options.

Section 5 Strand 2: Upgradation and regulation

5.1 This policy strand primarily draws upon: the rapid fact-finding short reconnaissance fieldwork conducted; the case studies of slum upgrading in Kochi and elsewhere (Das & Takahashi, 2009); the case study of the Garima project, a model of regulation pursued in Kozhikode District; and newspaper reports on migrants and affordable housing in Kochi.

Summary of salient features of the Garima project, Kozhikode District

- 5.2 The Garima project was designed by the District Administration of Kozhikode, and in its first phase was implemented in conjunction with the Kozhikode Municipal Corporation. It was announced in 2017. The project relies primarily on a regulatory approach to ensure standards in housing for migrant families. The information below has been collected from secondary sources, mainly newspaper reports on the project.
- 5.3 Health inspectors from the Kozhikode Municipal Corporation inspected rental houses provided to migrant families and rated the facility on a scale of eight factors. These included: access to infrastructure such as toilets, bathing facilities, water, electricity, and solid waste; the size of the facility; condition and upkeep of the unit; and the location of the facility. Facilities were rated as very good, good, average or bad, following which, notices to improve were issued to building owners (*Times of India*, 2017).
- 5.4 168 rented buildings were examined in 2017 and only one accommodation was listed as 'very good'. 23 facilities were listed as 'good' or 'average' and 76 facilities were listed as 'bad'. Improvement notices were issued to houses deemed to be 'average' or 'bad' and landowners were asked to improve the property within a time frame (*Times of India*, 2018).
- 5.5 The scheme was later expanded to incorporate a health insurance scheme, which was implemented in association with the State Labour Department. This was titled 'Garima Plus'. The enhanced scheme was linked to the Government Medical College Hospital, the Government General Hospital, Kozhikode and the Taluk Hospital at Perambra, with possibilities for further expansion at the time (*The Hindu*, 2019).
- 5.6 The scheme has encountered opposition from the labour contractors who have claimed harassment from officials in the name of inspection. This led to a staged protest by a bus-full of migrant workers taken to the Collectorate by labour contractors. The incident led to a shift from proactive inspections to inspections

scheduled only if complaints were received (*The Hindu*, 2019). Arguably this is now a much-diluted implementation of the project as initially envisaged.

- 5.7 The implementation of the above project has not yet been evaluated comprehensively.
- 5.8 Its efficacy cannot be conclusively commented upon, therefore. It is claimed, however, that the project has led to the corporation acquiring more accurate data on the state of migrant housing (*The Hindu*, 2020). During the lockdown, the city had 1,225 camps housing 12,098 labourers, supported with food and essentials by the Municipal Corporation. Around 5,000 labourers were said to have left the city and another 5,000 were supported by employers. The last news report from Kozhikode states that the city is working towards regulation by means of a by-law that would cover migrant accommodation including facilities to be provided, employment and a tax structure for employers (*The Hindu*, 2020).

Recommended regulatory approach by KMC

- 5.9 This section details broad approaches that KMC might choose to adopt in a regulatory approach to improve migrant housing. The improvement to housing required must be **settlement wide** in the current colonies, with special attention given to ensure inclusivity of migrant population needs (Das et al, 2020). A different strategy will be required for addressing the needs of pavement dweller populations made up entirely of migrants (see section 4.30), and to address the needs of migrants living beyond the colonies in individual houses distributed throughout the city (see section 5.12).
- 5.10 The settlement improvement strategy can be rooted in principles of general slum upgradation, wherein specific strategic infrastructure improvements are made directly by KMC while adopting a regulatory approach to deliver an improved environment within the slums. The strategy for pavement dwellers will largely require direct investment by KMC, but these will also need to be complemented by regulatory action on the ground.
- 5.11 The rapid fact-finding fieldwork shows that though some aspects of the WASH (water, sanitation and hygiene) agenda are critical in the locations studied, there seems to be adequate access to water. Sanitation and flooding issues remain crucial in both locations. Direct connections from toilets to the canals need to be addressed as a matter of urgency. Improvement of sanitation and flooding in the area also need improvement. Addressing the sanitation situation is tricky due to the high water table, which rules out soak pits as a desirable practical solution, though they seem to be the prevalent norm. Other options will need to be explored. A draft City Sanitation Plan seems to have been prepared by the city in 2011, though it is not clear how far implementation has progressed. The main solution proposed in the City Sanitation Plan is the extension of the current meagre sanitary system to a city-wide scale. This is

the ultimate solution, but in the interim, KMC might consider launching a specific technical design bid to explore further options for the safe disposal of sewage. It may also be useful to organise an international technical exhibition on infrastructure options (with help from organisations such as the UKIBC) to explore technical know-how that might be taken up by local entrepreneurs in the long run. Working with local business organisations, such as the Cochin Chamber of Commerce, would be useful. Together with the technical solution, on the ground community work will also be needed to encourage healthy and sustained sanitary practices. Also, economic use of water should be encouraged. There are NGOs working in this area in Kerala that can be approached.

- 5.12 The second significant issue is the prevention of flooding. This seems to occur mainly due to backflow through the canals and the lack of drainage that follows. Since tidal flows need to be preserved – a technical solution to this issue, such a redesign of drains with anti-backflow valves – for instance, will also need to be found. Again, KMC might consider organising a technical bid. The international technical exhibition, mentioned in section 5.10, if organised, could also help explore technical know-how that might be taken up by entrepreneurs locally.
- 5.13 In order to address overcrowding and issues of building upkeep, KMC will need to assess existing accommodation as done under the Garima project. This must be done alongside the investments in infrastructure and environmental improvement. A more facilitative approach to improve the built form, as detailed below, can be adopted. The survey can be prepared and executed solely by KMC, with technical and organisational inputs from elsewhere. Alternately, this can be organised as a studio project for a local architectural college. It is best that potential landlords are not involved in this assessment. In this case, this would mean that a participatory exercise involving the local colony population is to be avoided, as many of them are landlords. This survey can be done on a city-wide scale too, including the individual households located beyond the colonies that are within its remit.
- 5.14 Following the survey, there must be careful stocktaking of a range of investments needed to upgrade private accommodation. Enforcement alone is too blunt an instrument to address the complexity of investment, constraints, ownership and impacts. A ‘carrot and stick’ approach will need to be pursued. For instance, some of the issues that will need to be considered and addressed will include: ensuring access to finance for landlords to invest in improving structural safety, dilapidation, poorly ventilated and/or leaking buildings; spatial constraints on enlarging an existing room size due to small plot sizes; a mix of fines and incentives to encourage investment within a time frame; a mix of strategies to cater to units rented directly, as well as through employers for their workers; and consideration of ways to address potential rental increases that lead to units not being accessible to migrant workers any more.

- 5.15 Within the colonies susceptible to flooding, KMC investment in local infrastructure upgrading will need to commence *first* for the regulatory approach to have credence. If not, it will be difficult to motivate the local population to invest in buildings that are only going to be flooded year on year. Also, if specific ways and means to facilitate compliance to address identified issues, are also not devised, a backlash can result, as was seen in the case of Kozhikode.
- 5.16 For pavement dwellers, affordable night shelters will need to be constructed with adequate support provided through community workers (see section 4.30). A shortage of migrant housing in general is felt on ground. Landowners seem to have no problem in finding migrant renters, though they only rent rooms to those who have been recommended. As such, pavement dwellers can be seen to partially be the result of the shortage of affordable houses. An increase in rental accommodation for migrants in general and cheaper night facilities in particular, should help with this situation. Once the night shelters are constructed, and adequate shelter is ensured (see information on the DAY-NULM scheme in sections 4.33 to 4.35), pavement dwelling needs to be strongly discouraged as it is not conducive to migrant well-being. However, there must be shelters available to which pavement dwellers can be shifted before any type of effort to remove them is taken. If not, the issue will just shift to another location.
- 5.17 The next strand describes formulating a community land trust – a migrant community-based approach facilitated by an NGO.

Section 6 Strand 3: Community land trust

6.1 This policy strand draws upon: an understanding of community land trusts (CLTs) gathered from the literature; published case studies of rental CLT operations in the US (Angotti, 2007; Ciardullo, 2013) and Kenya (Bassett, 2005; Bassett and Jacobs, 1997); a documentation of an ownership-based CLT in London (Chettiparamb, 2021); insights from the local context of Kochi, drawn from the stakeholder workshop; fieldwork among migrant populations; and documents from local and state government departments operating in the Kochi Corporation area. It is presented here as a migrant community-focused strategy (wherever migrants may be located), rather than a settlement-focused strategy (targeting colonies, for instance).

Salient features of a community land trust

6.2 CLTs emerged from different movements across the globe, including: the Gramdan movement, India; the Garden city movement, UK; customary land traditions in Africa; and leased land agricultural practices in Israel. It first emerged as a recognisable model in US in 1969 in response to civil rights demands by African American activists. There are now more than 240 CLTs in US and close to 300 in England and Wales (www.communitylandtrusts.org.uk).

6.3 CLTs have generally been used in housing as mechanisms to provide owner-occupied housing to members that are affordable in perpetuity by removing land speculation. CLTs are now also providing housing at affordable rents in perpetuity (Angotti, 2007; Ciardullo, 2013). CLT mechanisms for both owner-occupied housing and rental housing are explained in this section.

6.4 A CLT involves members of a 'community' that is usually place based (e.g. households in a slum area), but can also be based on other characteristics, such as migrant workers. They may have thousands of members, depending on the need in a location/target group. Membership is voluntary and members have to formally opt in by paying some kind of token sum, such as R 1 annually. This allows for the CLT to be constituted.

6.5 The CLT is governed by a board of directors (BoD) that manages the day-to-day workings of the CLT. The BoD will typically have one-third representation from the members of the target community (say, migrants), one-third from the wider community within which the target community is located (say, the receiving population) and one-third from technical professionals (such as architects, builders, engineers, managers, etc). Involvement of the target community members allows for community considerations to be represented; involvement of the wider community in

the board will allow for the CLT to connect with citywide concerns; and involvement of technical staff will allow for technical support in decision-making.

- 6.6 A CLT 'stewards' or holds land in trust in order to deliver specific community purposes, such as affordable housing. Land is: gifted to the CLT by an entity (e.g. government or public sector organisations); *de facto* already occupied by the CLT (e.g. slums on government land); bought by the CLT from funds made available through grants and other donations; or rented from another organisation under a long lease. The land is collectively owned by all members of a CLT.
- 6.7 The demarcated land is then developed to provide homes for the CLT members. Finances for development are raised in a number of ways: by a back-to-back mortgage⁶ in the case of owner-occupied housing; through self and mutual help in construction; through public sector funding; through other donations; or through a mixture of the above.
- 6.8 In the case of home ownership, each household buys the house at an affordable, agreed price and will own the building. The land will continue to be owned by the CLT. The house is sold at affordable rates, but a set of conditions are attached to the sale of the home. These typically constitute an anti-speculative mechanism that limits re-sale options. Typically, all sale and re-sale prices track the median income of the community rather than market values. This ensures that the houses are permanently affordable. Additionally, the CLT holds first right of refusal.⁷ The house can only be occupied by members of the CLT. This ensures that the housing stock always remains within the community. Any improvements to the basic house that the owner has made (e.g. tiled a room) are reimbursed at the time of sales.
- 6.9 In the case of renting, the house is developed and owned by the CLT and is leased to the family at affordable rates. Again, rental rates track median income rates rather than market rates to keep rental levels affordable, and the housing stock can only be leased to members of the CLT.
- 6.10 The BoD is normally also involved in outreach services, such as: providing good home ownership/leasing training; providing skills training and development; ensuring access to financial/banking services; ensuring access to government welfare programmes.
- 6.11 The advantages of the CLT are as follows:
 - 6.11.1 Housing can be accessed at rates that are genuinely affordable as rates are penned to income levels rather than market values.

⁶ If for example five units are built by the CLT for 5 families, then the mortgage eligibility of the 5 families can be used by the CLT to secure funds for construction. This is called a back-to-back mortgage.

⁷ First right of refusal means that if a family wishes to sell their house due to whatever reason, the CLT has to first say that it cannot purchase the house, before it can be sold directly by the house owner to a designated buyer.

- 6.11.2 It keeps housing stock permanently accessible and affordable within the target community.
 - 6.11.3 Community involvement and decision-making is central, thereby empowering communities.
 - 6.11.4 Communities can benefit from wider targeted welfare provisions.
- 6.12 KMC can consider initiating a pilot CLT in the first instance. This can later be scaled up or replicated to be more widely applicable, if it has proved to work well. It will be the first CLT in India, if implemented.

Steps to be initiated for setting up a pilot CLT

- 6.13 The description provided above presents a general overview of how a CLT works. The specificities of a CLT, however, need to be developed while taking into consideration the local situation, laws, land values, nature of the community, extent of government-provided services, other community services available and so on. The mechanisms adopted vary in their specific details from community to community; the key is to find the balance that will work in Kochi.
- 6.14 KMC will need to facilitate the creation of the CLT until it is established. The following are the key steps that need to be taken to establish a CLT:
- 6.14.1 The CLT has to be legally set up. This will involve considerable organisation and community mobilisation. We recommend that a Kochi-based NGO be involved and entrusted with the main community organisation work, including: explaining the project; achieving consensus on membership criteria; forming the BoD; and legally registering the CLT. Once the CLT is fully formed and running with a BoD, the NGO can be dissolved or engaged for further designated deliverables.
 - 6.14.2 Appropriate sites for the development of homes must be identified. More on this can be found later in this section (see 6.18 to 6.22). This stage will also involve: setting prices, identifying revenue sources, securing the funds and taking possession of the land. The newly constituted BoD will take a lead on this.
 - 6.14.3 Planning for site development will include: formulation of building plans and infrastructure provision; planning for viability; identifying sources of funds for development; achieving consensus on prices and conditions of sales; achieving consensus on a home allocation mechanism, and so on. Again, the newly constituted BoD will take a lead on this.
 - 6.14.4 Building out the plans can involve local contracting or involving the CLT itself in the building process. The details of this stage will need to be agreed upon

by the CLT through general assembly meetings. But again, the BoD will lead this stage.

- 6.14.5 There will need to be a plan for maintenance, upkeep and other community support mechanisms.
- 6.15 Mobilisation of a community into a CLT will require mobilisation efforts and community organisation skills. A quick glance through the list of NGOs available at Kochi Corporation suggests that a call for an EoI might be the best way to secure an appropriate NGO.
- 6.16 KMC, the chosen NGO and the CLT may need expert hand-holding in the initial days, when key decisions are made. It would be best if KMC appoints a consultant to see this through.
- 6.17 Options for the CLT to bid for the ARHC scheme detailed in Strand 1 might also be considered, as long as the CLT is registered before March 2022, the current end date of the ARHC scheme.

Identification of possible sites for CLT homes

- 6.18 During the stakeholder workshop, it was evident that KMC had already identified land for migrant housing. This can be used to kickstart work immediately. However, land for future affordable housing needs to be identified and work on this needs to commence simultaneously.
- 6.19 A vacant land register for KMC does not exist at the moment. KMC should undertake a vacant land survey to formulate a vacant land register that can be used for this and other projects. A strategy to keep this updated every 3–5 years is also strongly advised.
- 6.20 If a detailed base map for the entire KMC area is already available at the Town Planning Department or at the Greater Cochin Development Authority (GCDA), then on-ground updating of the work can commence. If not, the first step would be to create such a base map.⁸
- 6.21 The newspapers report that attempts to create a geographical information system (GIS) map is under way by the Welsh School of Architecture at Cardiff University. Working in Kochi to create the GIS base map, the Welsh School of Architecture originally planned to complete it by June/July (Karun, 2021). If this has been completed in time, it can provide the base map. Discussions during the webinar organised as part of this project revealed that the Centre for Policy Research has been tasked by GIZ to do a survey of internal migrant housing in Kochi. They have explored

⁸ A base map is a map which shows physical features including buildings. It is called a base map as this is often the map on which other characteristics as required are marked.

the option of using a GIS map. The Centre for Policy Research can also be checked for availability of a base map.

6.22 Once a base map is secured from the Town Planning Department, GCDA, Welsh School of Architecture or the Centre for Policy Research, an on-the-ground survey needs to be carried out to identify and characterise vacant sites, to understand factors like ownership, whether or not it is built up, the condition of the built form, a site description, the reasons for vacancy, and so on. Two options for doing this are:

6.22.1 Liaise with a local architecture/planning school to incorporate this work as a student project.

6.22.2 Form a group under the leadership of local ward councillors and perform a community-led reconnaissance.

6.23 The vacant land register can also contribute and be incorporated in the rental housing survey required for the Bandhu app detailed in Strand 4.

6.24 The next section details ways of facilitating the connection of renters to landlords using digital mediums.

Section 7 Strand 4: Connecting landlords to renters

- 7.1 This policy brief was prepared following a presentation from the Bandhu app provider, in a webinar organised as part of this project (Palavajjhala, 2021), a search through the Bandhu website and subsequent one-to-one interactions. This section has also been checked for accuracy by the Bandhu app providers. This initiative is recommended as it can potentially enable rental housing to be subjected to policy and regulation. The proposed action plan for Kochi draws upon an understanding that collecting information, monitoring it and setting policy parameters in response can be greatly facilitated if transactions between landlords and tenants can be made transparent.

Salient features of the Bandhu app

- 7.2 The Bandhu app is developed by a private limited company. The Chief Executive Officer is Mr Rushil Palavajjhala and the Chief Operating Officer is Mr Jacob Kohn. The parent company is headquartered in the USA, and operates in India through its subsidiary, a private limited company from Ahmedabad, Gujarat.
- 7.3 At its core, the Bandhu app provides an online mobile phone platform where private/public landlords can upload the details of properties that are available to rent for migrants. Migrant workers can view such details on their mobile phones and can make decisions on whether to rent, based on information provided on the app (similar to the Airbnb app).
- 7.4 Data that might accompany the information on available rental houses include the following:
- 7.4.1 Precise location on a map
 - 7.4.2 House descriptions, such as number and type of rooms
 - 7.4.3 House facilities, such as availability of water, electricity, sanitation etc
 - 7.4.4 Condition of house
 - 7.4.5 Rental value and other accompanying rental conditions
 - 7.4.6 Basic information on the landlord.

There is some flexibility on deciding the data attributes that need to be specified for a rental property. Visual data from the property will be included and the information can be uploaded in any language as the Bandhu app provides a translation function.

- 7.5 The data is first uploaded by the landlords, helped and verified by Bandhu through local, on-location staff in Kochi. If verification of direct data is not possible for certain

attributes, indirect measures may be used for verification (known as data proxy analysis). Thereafter Bandhu collects feedback from tenants and makes the feedback available to potential renters. This can constitute a self-regulating system to some extent. For pressing issues, on-site checks will be conducted by the Bandhu on-location staff. If significant issues have been found on a location, landlords may have to pay a 'quality assurance fee' to cover multiple checks required to reinstate the property on the website. Landlords will also pay a fee to Bandhu when their properties listed on the app receive tenants. Data for existing large sites may be entered and uploaded by Bandhu staff directly to kick start the project.

- 7.6 It will be easier for Kochi Corporation to keep an eye on standards of rental housing, rental levels, location wise variations, variations across time and so on, for regulation and policy purposes for properties registered on the app. Bandhu will provide regular data reporting to KMC based on agreed requirements.
- 7.7 It is not possible to predict how many landlords will register their property on the app, however. The Bandhu app can be used even by landlords who have low technological proficiency. However, it does require landlords to be not put off by technology. The more the uptake, the more complete a picture can be obtained of the state of rental housing for migrants in real time.
- 7.8 The migrant workers will have free access to the app. They can search potential houses/rooms for rent in a particular location/community, compare facilities and rents and make an informed choice. Property information can be accessed in any number of languages. The app will be available, free of cost, in a variety of vernacular languages – according to the prevalent user bases.
- 7.9 Having information on their mobile phones will allow migrant workers to compare prices against facilities and narrow search areas by any feature, such as location. They can also access feedback information left by other renters. This can mean saved time in house hunting, better information availability and better guarantee of conditions of renting.
- 7.10 The app can also include additional information that can help the migrant worker to access facilities and programmes. Thus, nearest surrounding amenities such as hospitals, parks, schools and anganwadis (childcare centres) can be included. Also, relevant information on migrant-friendly schemes – such as the migrant insurance scheme, how to access it, who to contact, etc – can be included. This can then encourage better targeting and access to amenities. Aadhaar e-KYC⁹ checks are already part of the Bandhu technology platform.

⁹ The Aadhaar card is issued to residents or passport holders of India and shows a 12-digit unique identity number. An e-KYC is an electronic 'know your customer/client' procedure to identify and verify a person's identity.

The process of launching Bandhu

- 7.11 The process of launching Bandhu will involve the steps detailed below. Essentially the app will be provided free of cost. There is a cost involved in uploading information on to the app. Bandhu will manage this process at cost, essentially expecting KMC to pay the salary costs according to local rates for personnel involved.
- 7.12 Bandhu will first review all publicly available data on Kochi. Data may be collected from KMC, GCDA, Town Planning Regional Office and other public sector organisations. Support from KMC will be needed in terms of enabling access to data for Bandhu appointed staff.
- 7.13 With the help of councillors, using their local information, Bandhu will start work on the ground by identifying those locations that migrant workers live in greater numbers. Data from rental facilities on these sites will be directly uploaded by Bandhu staff on to the app.
- 7.14 A team of 2–3 personnel will work on the ground in Kochi. They will visit earmarked housing facilities, upload information and train landlords who have signed up to use the app. Similarly, Bandhu staff will work with groups of migrant workers on app usage. They will also train local community leaders and NGOs working in the location, so that onward training will be more readily at hand, should it be needed. Bandhu will charge KMC the salary costs of on-ground personnel. The number of personnel on the ground can be adjusted to suit the KMC budget.
- 7.15 Data from the app will be passed on to the ULB free of cost. Bandhu will follow agreed formats of reporting to the KMC, and can be flexible in terms of data reporting. Bandhu can therefore incorporate any reasonable demands on data formats that the KMC wants from the data collected via the app. If KMC requires a dedicated website/dashboard to be built for the same, this can also be done at a cost depending on requirements.
- 7.16 Bandhu will continue to explore and develop the app and in time expects the possibilities of more functionalities. These might include livelihood options, where footloose migrant workers might locate prospective work and employers could find suitable migrant workers (such as in the Kormo app by Google). When established, this can contribute to diminish the need for ‘labour stands’ at road junctions (Dhal, 2020).
- 7.17 Some of the policy decisions taken by KMC can also be channelled through the app. For instance, quotas on number of beds that can be directly booked by employers can be introduced so as to enable enough supply of housing for footloose workers. Another example is the use of KMC subsidies for certain housing for particular employment categories based on vulnerability. Depending on the particular requirement, some of these may be priced, but others can be provided free of cost.

Finances

- 7.18 As already stated, the Bandhu app will be available to all migrant workers free of cost.
- 7.19 The financial model of Bandhu primarily relies on fees charged to landlords. Three types of charge will be levied.
- 7.19.1 First when properties are entered on the app, Bandhu will charge landlords a kind of property registration fee.
 - 7.19.2 Second, every time a new tenant visits the property, the landlord gets charged a visit convenience fee.
 - 7.19.3 Thirdly, when tenant and landlord confirm their deal on the rental accommodation, Bandhu will charge the landlord a one-time transaction fee for the duration of the rental lease. This can be around 5% of the rent for a month. This model can be evolved/adjusted to suit local user behaviour.
- 7.20 The costs involved in collecting, uploading and verifying data at the start of the project will be charged to KMC. This involves salary costs of 2–3 personnel for around 6 months.
- 7.21 In return for the investment by KMC in data collection, summary reports will be regularly shared with KMC free of cost.
- 7.22 If further development of the app to include specific information/facilities is to be undertaken, this can be charged to KMC depending on the nature of the work.

Implications for KMC

- 7.23 KMC wider staff support may be required in the early days of data collection and training. KMC may need to assign oversight of this project to a particular entity within KMC. A designated contact point for Bandhu will also need to be identified.
- 7.24 Bandhu might use data from open sources or data from sources/organisations involving remote sensing, satellite imagery etc, through what is known as web-scraping. Simply put, this means extraction of data from a particular site. Bandhu might also build upon other work taking place in Kochi, such as the GIZ mapping project by the Welsh School of Architecture, Cardiff University or the vacant house survey proposed in Strand 3 of this report.
- 7.25 The modalities for carrying on the work during the pandemic, if so decided, may need to be negotiated directly with Bandhu. A bespoke contract between Bandhu and KMC will then need to be drawn up and signed.
- 7.26 KMC will need to discuss data ownership and data sharing protocols with Bandhu. It is recommended that KMC consult with an appropriate technical and legal authority on the technical and legal aspects prior to signing a contract with Bandhu.

7.27 The next section summarises the recommendations made in all four strands, and highlights the possible partners involved and the possible sources of funding for each component.

Section 8 Summary, implementation and financial sources

- 8.1 This section summarises the key recommendations from the four proposed strands and puts forward actions for implementation, as well as further projects to aid implementation.
- 8.2 It is hoped that financing for some of these projects can be found from the various centrally sponsored schemes, such as the Kochi Smart City Mission, DAY-NULM and the ARHC scheme; from state government schemes, such as LIFE mission; and/or from various programmes of the Labour Commissionerate, whose mandates the initiatives suggested below overlap with. It is also suggested that the technical assistance provided by GIZ to Kochi be explored for funding technical and advisory elements of the project. Finally, KMC might decide to use its own funds, devolved plan funds and corporate social responsibility (CSR) monies to fund elements that are more participatory in scope. An approach entailing convergence of various interests is recommended.
- 8.3 Table 3 details the various recommended initiatives and possible collaborating partners, together with suggested funding sources to be explored. These are indicative and are included here in order to spark discussion and facilitate a final decision by KMC.

Table 3 Possible initiatives, collaborative partners and funding sources

Recommended strands	Recommended actions/projects	Possible collaboration partners	Possible financial sources
Strand 1: Private sector involvement and facilitation	<p>Explore if there are vacant houses in housing schemes funded by government departments or other parastatals in Kochi.</p> <p>If yes, assess housing stock and entrust the upkeep to a private bidder via an EoI for repair/retrofit/development/operation of these vacant units.</p> <p>This will need to include decisions on the number of families that may be housed, eligibility criteria, as well as maximum rental levels to be charged.</p> <p>Monitoring and arbitration arrangements will need to be in place for the contract with the private concessionary.</p> <p>Alternatively, KMC may constitute a unit to manage the property or work with the Labour Commiserate to do this on behalf of KMC. The above decisions will still need to be made together with arrangements to ensure proper maintenance.</p> <p>Check if any private bidders have come forward in response to the MoHUA’s call for building of affordable rental complexes.</p> <p>If yes, maximum rental values will need to be fixed locally. Also, any regulation that KMC may wish to impose or any support that KMC may wish to provide to the builder will need to be decided.</p> <p>KMC can also decide to build an ARHC complex on its own or encourage other government departments, such as the Labour Commiserate, to build one (such as an Apna Ghar scheme). The EoI of MoHUA for bids</p>	<p>Central Government (MoHUA)</p> <p>Labour Commiserate as a possible partner in implementing an ARHC complex as another Apna Ghar.</p> <p>Any private concessionaire entrusted with upkeep and maintenance of rental units.</p> <p>Units within KMC such as the Urban Poverty Alleviation Cell or Kudumbashree, who might be able to report on vacant units.</p>	<p>AHRC funds can be used for this if implemented before March 2022.</p> <p>DAY-NULM of MoHUA provides substantial funds for the building of night shelters.</p>

Recommended strands	Recommended actions/projects	Possible collaboration partners	Possible financial sources
	<p>for ARHC complexes can be studied and responded to if found advantageous.</p> <p>A night shelter to address the issue of pavement dwellers must be prioritised. The DAY-NULM in particular should be explored as it provides substantial funding for providing night shelters.</p>	<p>Central government scheme units such as the Kochi Smart Cities Mission Ltd.</p>	
Strand 2: Upgradation and regulation	<p>Adopt a settlement level strategy for upgradation and a community focused strategy for regulation.</p> <p>Improve sanitation and reduce flooding risks in the colonies.</p> <p>Focus on implementing the relevant sections of the City Sanitation Plan prepared in 2011.</p> <p>Consider organising an international technological exhibition to showcase solutions to address the difficult problem of managing sanitation and flooding in the context of high ground water tables and tidal actions that cannot be stopped. Work with entities such as the UKIBC on this.</p> <p>Work with local business associations (e.g. Cochin Chamber of Commerce) to link the above exhibitions with possible local manufacturers to realise some of the solutions locally through international collaboration.</p> <p>Launch an international bid/competition for technical design solutions on the above issue of safe, low-cost sanitation and control of flooding, while allowing for tidal flows.</p> <p>Provide awareness campaigns to promote proper use of water.</p>	<p>Central government scheme units such as the Kochi Smart Cities Mission Ltd for addressing sanitation and flooding issues.</p> <p>Chamber of Commerce.</p> <p>NGOs to promote awareness in communities.</p> <p>Architectural schools for survey work.</p> <p>Units within KMC such as the Health Department to advise on how to assess</p>	<p>Central and State Govt. schemes that allow for slum upgradation</p> <p>The State Government can be approached to contribute to fund the international exhibition or they may be persuaded to take this on entirely as the benefits in terms of technical progress and local business incubation would be state-wide.</p>

Recommended strands	Recommended actions/projects	Possible collaboration partners	Possible financial sources
	<p>Launch a built form, citywide assessment of rental accommodations for migrants. Either work with local architectural colleges/schools to organise this exercise as a student project or employ KMC staff to do the assessment with technical input if necessary from elsewhere.</p> <p>Decide on a 'carrot and stick' approach, ensuring access to finance for landlords for improving buildings; addressing spatial constraints on enlarging an existing room size due to small plot sizes; deciding on a mix of fines and incentives and a mix of strategies to cater to units rented directly as well as through employers for their workers.</p> <p>Ensure there are adequate night shelters for pavement dwellers and then strictly regulate such living.</p>	<p>adequacy of rental houses and to decide on package of incentives to facilitate provision of adequate housing.</p> <p>MoHUA, NGOs or Labour Commissionerate to provide night shelters.</p> <p>GIZ for technical assistance.</p> <p>Agencies such as UKIBC for technical solutions.</p>	<p>GIZ project for funding technical assistance for the exhibition, or for paying consultancies.</p> <p>Bid for funds from various international funders, such as the Ford Foundation.</p>

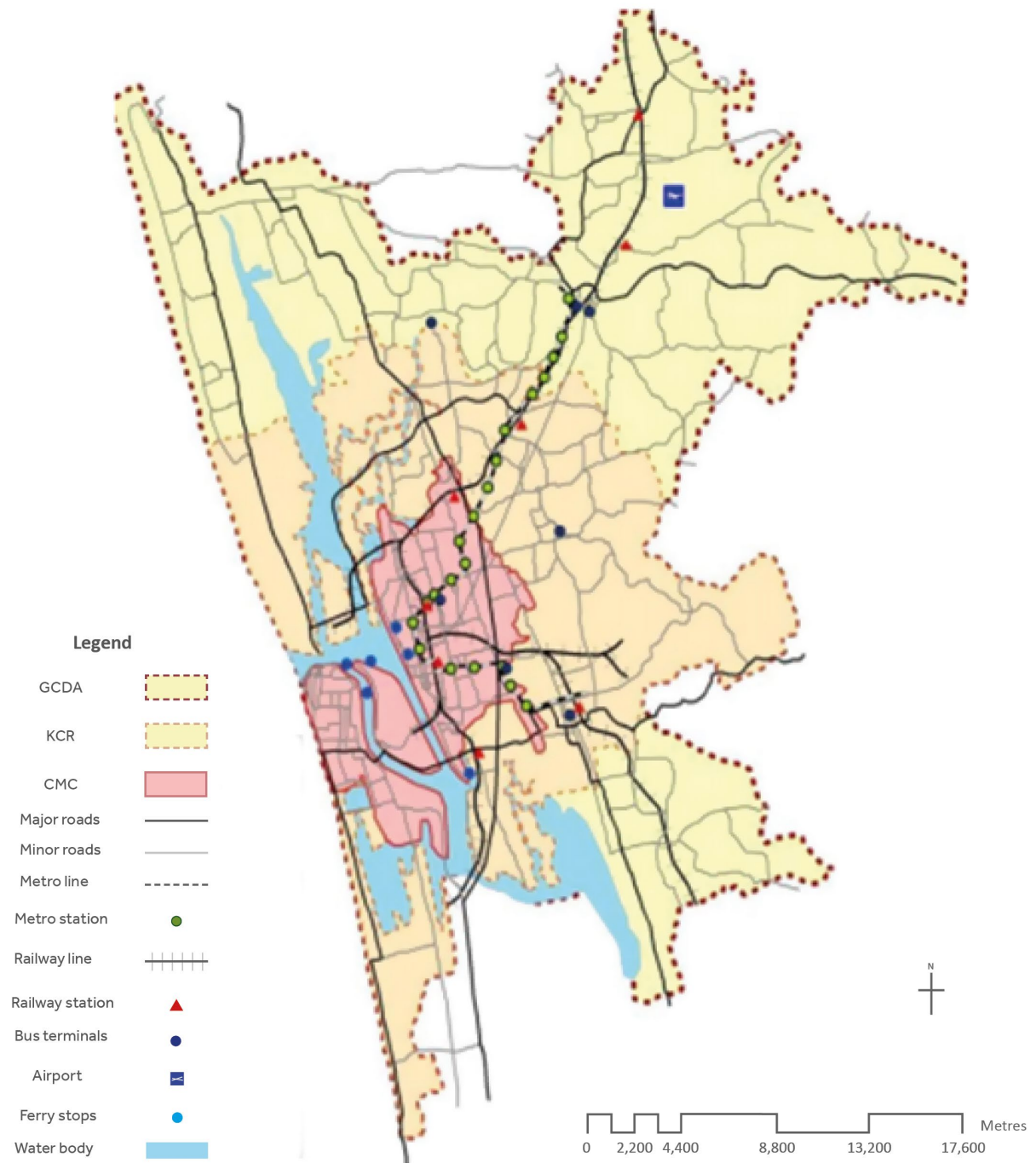
Recommended strands	Recommended actions/projects	Possible collaboration partners	Possible financial sources
Strand 3: Community land trust	<p>Since a CLT has not been attempted in India before, engage a consultant and a local NGO to handhold the process of formation of a CLT involving migrant workers.</p> <p>Ensure that the CLT is formed and the BoD is constituted. Thereafter devolve responsibility to the BoD, but facilitate the working of the CLT when needed.</p> <p>Simultaneously undertake a vacant land survey to deliver a vacant land register. Also, devise a mechanism to keep this register updated regularly.</p> <p>Involve either a local architecture school to undertake the vacant land survey as a student project or launch a participatory mapping at ward level under the leadership of ward councillors. Technical inputs into this project will need to be arranged.</p>	<p>Architectural schools for vacant land survey work.</p> <p>Local NGO for community mobilisation and integration of the provision of other services to the migrant community.</p> <p>Consultant to handhold the NGO and KMC in launching the CLT.</p>	<p>The state government can be approached to fund at least parts of this venture as a model for the state (such as the creation of the vacant land register).</p> <p>KMC's own funds, devolved funds or CSR monies.</p> <p>GIZ funding for the consultant</p>

Recommended strands	Recommended actions/projects	Possible collaboration partners	Possible financial sources
Strand 4: Connecting landlords and tenants	<p>Enter into discussion with Bandhu to decide on the formats for data reports, the costs involved, data ownership and data management protocols.</p> <p>If acceptable, enter into a contract with Bandhu.</p> <p>Designate contact point for Bandhu to work with and facilitate the work of data uploading.</p> <p>Monitor work by Bandhu and ensure data reports feed into ongoing interventions with regard to migrants and their housing.</p>	<p>Bandhu app providers.</p> <p>Unit within KMC to work with Bandhu and ensure data reports are used in decision-making.</p>	<p>KMC's own funds to pay for initial data collection and uploading.</p>

- 8.4 This project team will be happy to continue to help with some of the tasks detailed above, if required. In particular, consultancy for the following actions can be provided:
- 8.4.1 Help in liaising with UKIBC to explore assistance in organising international technical exhibition.
 - 8.4.2 Design and facilitate the assessment of rental accommodations for migrants (if carried out by an architectural school in Kochi or by KMC staff).
 - 8.4.3 Help in deciding a package of incentives and fines for improvement of buildings following the assessment.
 - 8.4.4 Advise local NGOs on the formation of a CLT and continue to advise the BoD of the CLT on ongoing management.
 - 8.4.5 Design and facilitate the vacant land survey (if done by an architectural school as part of a student project or if done through a participatory mode involving ward councillors).
- 8.5 Should KMC decide on a further consultancy, terms for this will need to be worked out. Initial talks indicate that GIZ funds may be available to fund the consultancy.

Appendix

Map 1: Metropolitan region of Kochi. The pink area shows the boundaries of the Kochi Municipal Corporation



(Codatu, 2021)



Image 1: Stakeholder workshop organised at Kochi on 5 March 2021.



Image 2: Focus Group Discussion with one couple and three female migrant workers from Andhra Pradesh at Udaya Colony, all living together in the room in which this photograph was taken. Photograph taken on 17 March 2021.



Image 3: Focus Group discussion at Vaathuruthy Colony with male migrant workers from Tamil Nadu. 7 March 2021.



Image 4: Meagre possessions owned by the migrants 17 March 2021.

References

- Adusumilli, U (2021) *Facilitating creation of rental housing stock by markets in Mumbai Metro Region: the lessons and prospects*. Webinar organised for the Rapid Response in Policy Engagement project, Hosted by Kerala Municipal Corporation and University of Reading, 16 March
- Angotti, T (2007) *Community land trusts and low income multifamily rental housing: The case of Cooper Square, New York City*. Lincoln Institute of Land Policy Working paper. [Accessed 17 June 2021] <https://infostation1.net/1/anthony/community%20land%20trust.pdf>
- Anilkumar, T (2020) Nearly 1L guest workers staying in Ernakulam district. *The Indian Express*. 4 April. [Accessed 17 June 2021] www.newindianexpress.com/cities/kochi/2020/apr/04/nearly-1l-guest-workers-staying-in-ernakulam-district-2125485.html
- Bassett, E M (2005) Tinkering with tenure: The community land trust experiment in Voi, Kenya. *Habitat International*, 29 (3), 375–98
- Bassett, E M & Jacobs, H M (1997) Community based tenure reform in urban Africa: The community land trust experiment in Voi, Kenya. *Land Use Policy*, 14 (3), 215–29
- Census (2011) Kochi City Population 2011–2021. [Accessed 17 June 2021] www.census2011.co.in/census/city/459-kochi.html
- Chettiparamb, A (2021) *Keeping Urban Housing Permanently Affordable: The London Community Land Trust*. Lincoln Institute of Land Policy: Cambridge, Massachusetts
- Ciardullo, M (2013) Community Land Trusts have renters too. Shelterforce: The original voice of community development. [Accessed 17 June 2021] <https://shelterforce.org/2013/10/15/community-land-trusts-have-renters-too/>
- Codatu (2021) The Transport and Mobility Scenario in Kochi: Past and Current Trends, Challenges. [Accessed 10 June 2021] www.codatu.org/wp-content/uploads/Transportmobility-scenario-in-Kochi-by-KMRL1.pdf
- Das, A, Mukherjee, A, Sarkar, B, Chatterjee, S, Gupta, A & Jain, A (2020) Improving Housing for Urban Poor – Learnings from BLC Implementation in Kerala. New Delhi: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) & Centre for Policy Research. DOI: 10.13140/RG.2.2.26683.23844
- Das, A K & Takahashi, L M (2009) Evolving institutional arrangements, scaling up, and sustainability: Emerging issues in participatory slum upgrading in Ahmedabad, India. *Journal of Planning Education and Research*, 29 (2), 213–32
- Dhal, M (2020) Labor Stand: Face of precarious migrant construction workers in India. *Journal of Construction Engineering and Management*, 146 (6). [Accessed 17 June 2021] https://ascelibrary.org/doi/full/10.1061/%28ASCE%29CO.1943-7862.0001761?casa_token=6WmrDgQz6WsAAAAA%3ARN4m9yKyrCyKjovmzgX9wntG6Bn0EadbT5_H6ALbvRYY2T8kYDsGj0xFsTWZrjGyGxCzycSa55U
- FindEasy (2021) The Census 2011 Information on Population of Kochi City. [Accessed 10 June 2021] www.findeasy.in/population-of-kochi/

- Gilbert, A (2016) Rental housing: The international experience. *Habitat International*, 54, 173–81
- Government of Kerala (undated) Life Mission. [Accessed 17 June 2021]
<https://lifemission.kerala.gov.in/>
- Karun, S (2021) Kochi GIS map: Cardiff univ takes crowdsourcing route. *Times of India*, 9 April.
 [Accessed 17 June 2021] <https://timesofindia.indiatimes.com/city/kochi/kochi-gis-map-cardiff-univ-takes-crowdsourcing-route/articleshow/81975758.cms>
- Kochi Municipal Corporation (2011) City Sanitation Plan. [Accessed 17 June 2021]
www.susana.org/resources/documents/default/2-1582-city-sanitation-plan-for-kochi.pdf
- Kumar, S (2011) The research–policy dialectic. *City*, 15 (6), 662–73
- Lonardon, F & Bolay, J C (2016) Rental housing and the urban poor: understanding the growth and production of rental housing in Brazilian favelas. *International Journal of Urban Sustainable Development*, 8 (1) 49–67
- Macrotrends (2021) Cochin, India Metro Area Population 1950-2021. [Accessed 10 June 2021]
www.macrotrends.net/cities/21305/cochin/population
- Ministry of Housing and Urban Affairs (2015) Mission Document: Deendayal Antyodaya Yojana-National Urban Livelihoods Mission. [Accessed 28 June 2021]
https://nulm.gov.in/PDF/NULM_Mission/NULM_mission_document.pdf
- Ministry of Housing and Urban Affairs (2020) Affordable Rental Housing Complexes. [Accessed 17 June 2021] <http://arhc.mohua.gov.in/filesUpload/Operational-Guidelines-of-ARHCs.pdf>
- Naik, M (2015) Informal rental housing typologies and experiences of low-income migrant renters in Gurgaon, India. *Environment and Urbanization ASIA*, 6 (2), 154–75
- Palavajjhala, R (2021) Bandhu – Enabling insightful migration decisions – Enriching livelihoods. Webinar organised for the Rapid Response in Policy Engagement project, Hosted by Kerala Municipal Corporation and University of Reading, 16 March
- Rao, N, Narain, N, Chakraborty, S, Bhanjdeo, A & Pattnail, A (2020) Destinations matter: Social policy and migrant workers in the times of Covid. *The European Journal of Development Research*, 32, 1639–61
- Scheba, A & Turok, I (2020) Informal rental housing in the South: Dynamic but neglected. *Environment & Urbanization*, 32 (1), 109–32
- Shibu, B S (2020) Kerala like home, not all migrant workers are in a hurry to leave. *The Indian Express*, 13 May. [Accessed 17 June 2021]
www.newindianexpress.com/states/kerala/2020/may/13/kerala-like-home-not-all-migrant-workers-are-in-a-hurry-to-leave-2142582.html
- The Hindu* (2019) Now, Garima project offers insurance scheme for migrants. November. [Accessed 17 June 2021] www.thehindu.com/news/cities/kozhikode/now-garima-project-offers-insurance-scheme-for-migrants/article30099706.ece
- The Hindu* (2020) Kozhikode Corporation to come up with by-law for employing migrants. 3 May. [Accessed 17 June 2021] www.thehindu.com/news/cities/kozhikode/kozhikode-corporation-to-come-up-with-by-law-for-employing-migrants/article31494970.ece

Times of India (2017) Migrants to get proper housing under 'Garima'. 18 August. [Accessed 17 June 2021] <https://timesofindia.indiatimes.com/city/kochi/migrants-to-get-proper-housing-under-garima/articleshow/60124179.cms>

Times of India (2018) Survey to assess living conditions of migrants in Kozhikode. 14 January. [Accessed 17 June 2021] <https://timesofindia.indiatimes.com/city/kozhikode/survey-to-assess-living-conditions-of-migrants-in-kozhikode/articleshow/62493468.cms>

UNHABITAT (undated) *A Policy Guide to Rental Housing in developing Countries. Quick Policy Guide Series – Volume 1*. UNHABITAT: Nairobi. [Accessed 17 June 2021] https://unhabitat.org/sites/default/files/documents/2019-07/policy_guide_to_rental_housing_in_developing_countries.pdf