



LUND
UNIVERSITY

Expanding Freedoms and Improving Commons through Labour

A Study of Kerala's Ayyankali Urban Employment Guarantee Scheme

Sahana Subramanian

A thesis submitted in partial fulfilment of the requirements of Lund University International Master's
Programme in Environmental Studies and Sustainability Science

Submitted May 8, 2023

Supervisor: David O'Byrne, LUCSUS, Lund University

Abstract

India faces an urban unemployment crisis and a crisis of declining life quality in urban spaces due to a lack of public services and the stress on urban commons. An urban employment guarantee scheme, such as Kerala's Ayyankali Urban Employment Guarantee Scheme (AUEGS), has the potential to address this twin crisis. Although well envisioned, AUEGS has underperformed since its inception, warranting attention. This study uses the capabilities approach to human development to assess AUEGS' impact on urban commons and on beneficiaries' well-being understood as human freedoms. By employing fieldwork drawing on qualitative methods in Kerala, India, the study shows that although AUEGS guidelines aim to improve beneficiaries' functionings and capabilities, structural and implementation issues hinder their realisation. While urban commons see improvement, beneficiaries experience a limited expansion of freedoms, and in some instances, further unfreedoms are created. This study also provides certain recommendations that target the identified issues of the scheme.

Keywords: Capabilities, AUEGS, Human Freedoms, Kerala, Local Governance, Urban Commons

Word Count: 11,930

Acknowledgements

I strongly believe that collaborative knowledge production yields the best results, and therefore, I owe a great deal of gratitude to many individuals and groups for their valuable contributions to this thesis. Firstly, I would like to thank all the AUEGS workers and officials who were interviewed throughout my thesis process. Their insights and perspectives were critical in shaping this thesis. I would also like to wholeheartedly thank Sreelakshmi for being a strong pillar of support during the interview process. Not only was she an excellent translator, quickly capturing the nuances of this research, but she has also become a good friend of mine.

Anand, thank you for your love, support, and encouragement throughout this process and for believing in me more than anyone else, including myself. You have taught me to have more faith and trust in my abilities, for which I will forever be grateful.

David, thank you for your exceptional guidance throughout the thesis process. Your support and feedback have helped me expand my knowledge of a very challenging concept and have made me a better student. I would also like to thank Ebba, Chad, and Seema for our initial discussions regarding my topic. Maja and Lisa, thank you for being amazing thesis group buddies and for giving me the encouragement needed throughout this thesis process. To my LUMES friends, thank you for caring for me and encouraging me throughout my two years in Sweden. Moving countries is never easy, but you made it a cherishable experience. To all my friends from APU, you are the reason I continue to be motivated to study topics of deep socio-political relevance. Your friendship and support mean the world to me, and I miss you all very much.

Most importantly, I am deeply grateful to my parents for instilling in my brother and me the importance of making positive contributions to society. I will always be thankful for their unconditional support and encouragement to pursue an unconventional career and education with which I intend to make positive impacts now and in the future.

Finally, thank you to the Swedish Centre for Local Democracy (ICLD) Fieldwork Grant and the Right Livelihood Fieldwork Grant for identifying the potential of this thesis early on and making this research possible.

Table of contents

1 Introduction	1
1.1 Study aims and research questions	2
2 Background	2
2.1 Introduction to AUEGS	2
2.2 Local governance in Kerala	4
3 Theory	5
3.1 Thinking differently about development	6
3.1.1 <i>The role of income</i>	6
3.1.2 <i>Focusing on the individual</i>	7
3.2 Capabilities and human-environment interactions	8
3.3 Capabilities, labour, and employment	9
3.4 Applying the capabilities approach to the Study of AUEGS	9
4 Methods	11
4.1 Research Design	11
4.2 Fieldwork methods	12
4.2.1 <i>Selection of sites and sampling</i>	12
4.3.1 <i>Interviews</i>	13
4.3.2 <i>Site observations</i>	16
4.4 Ethical considerations	16
4.5 Data Analysis	17
4.5.1 <i>A note on coding of public works</i>	18
4.6 Reflexivity in research	19
4.7 Data limitations	19
5 Results	20
5.1 Research Question 1: Improvement of Urban Commons	20
5.1.1 <i>Natural assets</i>	20
5.1.2 <i>Physical assets</i>	23
5.2 Research Question 2: Improvement of Human Well-being	26
5.2.1 <i>Human assets</i>	27
5.2.2 <i>Social assets</i>	28
5.2.3 <i>Financial assets</i>	28
5.2.4 <i>Political freedoms</i>	29
5.2.5 <i>Economic facilities</i>	30
5.2.6 <i>Protective Security</i>	31

5.2.7 <i>Social opportunities</i>	32
5.2.8 <i>Transparency guarantee</i>	32
6 Discussion	33
6.1 Research Question 3A: Challenges to the effective performance of the scheme	33
6.1.1 <i>Structural issues</i>	33
6.1.2 <i>Implementation issues</i>	34
6.2 Research Question 3B: Recommendations to improve the scheme	34
6.2.1 <i>Recommendations for improving the structure</i>	35
6.2.2 <i>Recommendations for improving implementation</i>	35
6.3 A note on caste and women's participation	36
6.5 Theoretical limitations	38
7 Conclusion	38
8 References	39
9.1 Appendix 1	47
9.1.1 <i>Guiding questions for interview set 'A': Local government officials</i>	47
9.1.2 <i>Guiding questions for interview set 'B': Beneficiaries of the scheme</i>	49
9.1.3 <i>Guiding questions for interview set 'C': Expert Interview</i>	51
9.2 Appendix 2	52
9.2.1 <i>Final set of codes for interview set 'A': Local government officials</i>	52
9.2.2 <i>Final set of codes for interview set 'B': Beneficiaries of the scheme</i>	54

List of Tables and Figures

Table 1	Three sets of interviews conducted for this study
Table 2	Phases of thematic analysis
Figure 1	Local Governance structure in Kerala for urban areas and those bodies responsible for the implementation of AUEGS
Figure 2	Adapted conceptual framework
Figure 3	Map indicating study sites in Kerala, India
Figure 4	Bamboo plantation work done under AUEGS in Wadakkanchery
Figure 5	Water conservation works done under AUEGS in Wadakkanchery
Figure 6	Vegetable farming done in the compound of an anganwadi, public child care centre, in Palakkad
Figure 7	Urban beautification work done under AUEGS in Alappuzha and Palakkad
Figure 8	AUEGS workers engaged in street cleaning in Palakkad
Figure 9	Plastic waste segregation in Alappuzha
Figure 10	PMAY document of a beneficiary indicating the level of construction completed in Palakkad
Figure 11	Workers cleaning public drains without protective equipment in Palakkad
Figure 12	Document showing workers' wage details in Palakkad, ward number 32

List of Abbreviations

AUEGS	Ayyankali Urban Employment Guarantee Scheme
CPI-M	Communist Party of India (Marxist)
GDP	Gross Domestic Product
HKS	Haritha Karama Sena
KILA	Kerala Institute of Local Administration
LDF	Left Democratic Government
LIFE	Livelihood Inclusion and Financial Empowerment
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NNP	Net National Product
PMAY-U	Pradhan Mantri Awas Yojana - Urban
INR	Indian Rupees
UEGS	Urban Employment Guarantee Scheme
USD	US Dollars

1 Introduction

Urban India is experiencing a looming unemployment crisis and a failing economy that is exacerbated by the precarious nature of urban informal employment and the economic impacts of the COVID-19 lockdowns (Chathukulam et al., 2021a). Alongside the crisis of jobs, there is another crisis of declining life quality in urban spaces that is driven by the lack of adequate public services and the stress on urban commons (Basole et al., 2019). Examples of this can be seen in the declining water quality, disappearance of green spaces, deteriorating air quality, and shrinking common spaces (Basole et al., 2019). This twin crisis unfolding in urban India requires immediate focus, especially under the backdrop of climate change and its potential to exacerbate existing inequalities (Islam & Winkel, 2017).

Economists and policy experts are increasingly demanding an urban employment guarantee scheme (UEGS) that can address the twin crisis in urban India; offering a solution through employment focusing on public works targeting the conservation of both ecological and civic commons (Chathukulam et al., 2021b). Ecological commons include air, waterbodies, and wetlands; and civic commons include streets, sidewalks, public spaces, public buildings, and more (Gidwani & Baviskar, 2011). An example of one such UEGS is Kerala's Ayyankali Urban Employment Guarantee Scheme (AUEGS). In 2010, Kerala became the first state in India to launch a UEGS and entrusted urban local governments with the implementation of the scheme (Chathukulam et al., 2021a). The aim of AUEGS is to increase the livelihood security of individuals residing in urban areas by providing 100 days of guaranteed wage employment (known as person days) in a year to an urban household whose adult members volunteer to do 'unskilled' manual work (Chathukulam et al., 2021a). Some examples of public works undertaken under AUEGS include natural resource management (water conservation, flood control, canal rehabilitation, tree plantation), organic agriculture, livelihood improvement (horticulture, sericulture, livestock farming, poultry farming), and infrastructure development (toilets, playgrounds, roads, disaster preparedness, rainwater harvesting) (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). AUEGS is unique in its prioritisation of improving women's labour force participation as it assures at least 50 per cent of the beneficiaries will be women (Chathukulam et al., 2021a). This scheme is especially important in Kerala in the aftermath of repeated extreme weather events (floods and landslides) since 2018 and its impact on people's livelihoods (Mundoli & Nagendra, 2022).

AUEGS is well envisioned with its provision of a strong rights-based social safety net for vulnerable individuals and its potential for improving urban commons (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). However, thirteen years after its inception, AUEGS has failed to achieve its potential with some studies suggesting the lack of revitalisation of the programme and government apathy as reasons (Chathukulam et al., 2021a, 2021b).

1.1 Study aims and research questions

The purpose of this study is threefold. One, it aims to understand what improvements AUEGS can bring to the well-being of its beneficiaries and to urban commons. Two, the study seeks to investigate what (if anything) stands in the way of AUEGS' success in achieving its potential; and three, the study aims to provide some recommendations that can enable AUEGS to comprehensively address the twin crisis. Stemming from these aims, the research questions are as follows:

1. Are urban commons (ecological and civic) improved through AUEGS? How?
2. Does AUEGS contribute to the well-being (understood as the expansion of human freedoms) of beneficiaries? How? Or, does it fail to?
3. A. If it fails to, then why?
B. How can the reasons for these failures be overcome?

This thesis is structured as follows. In the following section, I provide a short introduction to AUEGS and the local governance structure responsible for its implementation. Next, I expand on the capabilities approach to human development, the theoretical framework chosen for this study. I also contextualise its use in my thesis. Further, I explain the methodology used for this study and dive into the results of my research. Finally, I discuss the implications of my findings and present some recommendations for the scheme.

2 Background

2.1 Introduction to AUEGS

Kerala stands out as an example of high human development in India (Lieten, 2002). The state has historically achieved literacy, morbidity, child mortality, longevity, and fertility rates in comparison to more developed countries in the world (Lieten, 2002). The gender disparity between men and women

along the previously mentioned development indicators has narrowed down significantly over time (Lieten, 2002). The importance of state level political leadership and initiative in the development of individuals can provide an explanation for the high human development in Kerala (Sen, 1999). This success in social fields has occurred despite slow economic growth, low-income levels, and an unemployment crisis (Paviano, 2021; Sen, 1997).

Kerala has decentralised state government interventions in many areas of development, including education, health care, poverty alleviation, rural development, etc; which has improved people's lives. Some notable interventions include Kudumbashree, the poverty eradication project of Kerala; Suchitwa Mission, the integrated sanitation and waste management mission across rural and urban areas in Kerala; and Haritha Keralam, the mission for tackling environmental challenges in the state with a focus on water resource conservation, development of the agriculture sector, and sanitation (*Harithakeralam / Local Self Government Department*, n.d.; *Kudumbashree / What Is Kudumbashree*, n.d.; *Suchitwa Mission / Local Self Government Department*, n.d.).

Apart from these decentralised state government interventions, Kerala has championed the implementation of national-level schemes including the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which provides 100 days of guaranteed wage employment in a financial year to every rural household that volunteers to do unskilled manual work (Ministry of Rural Development, Government of India, 2012). Kerala has one of the highest unemployment rates in the country and schemes like MGNREGA help address this issue (Chathukulam et al., 2021b). However, despite there being similar unemployment issues in the urban areas, it wasn't until 2010 that the Left Democratic Government (LDF) led by the Communist Party of India (Marxist) (CPI-M), introduced a similar employment guarantee scheme for the urban areas of the state with a budget of INR 20 crores (Chathukulam et al., 2021b). This scheme, known as the Ayyankali Urban Employment Guarantee Scheme (AUEGS), was the first of its kind in India (Chathukulam et al., 2021b). Similar to MGNREGA, AUEGS aims to improve the livelihood security of individuals by providing 100 days of guaranteed wage employment a year to any *urban* household whose adult members volunteer to do unskilled manual work. The wages provided under AUEGS mirror those provided under MGNREGA in Kerala (INR 311 per day; roughly USD 3.8 per day) and the public works recommended to take place are also similar to those performed by workers under MGNREGA. The key difference between MGNREGA and AUEGS is that while MGNREGA is demand-led, AUEGS is supply-driven (Chathukulam et al., 2021b). This implies that the

urban local governments, tasked with implementing AUEGS, are also responsible for supplying or creating person days. In order to understand the implementation of AUEGS, it is necessary to take a look at the local governance structure in Kerala.

2.2 Local governance in Kerala

The Seventy-third and Seventy-fourth Constitutional Amendment Acts in 1992 gave constitutional status to rural and urban local governments, decentralised power, and deepened democracy in India (Harilal, 2008). In Kerala, the Kerala Panchayat Raj Act and the Kerala Municipality Act were enacted in 1994, and amended in 1999, to give more autonomy to the local government bodies (Harilal, 2008). The current local governance structure comprises the state government at the top of the hierarchy followed by the district planning committees that are further divided into rural and urban categories (Harilal, 2008). The urban category, which is relevant to this study, comprises municipalities and corporations (there are 87 municipalities and 6 corporations in Kerala), followed by ward committees or ward sabhas, and finally neighbourhood groups at the lowest level of governance (Harilal, 2008). Ward committees and ward sabhas, which play a crucial role in AUEGS implementation (Section 5.2.4), are the democratically elected bodies that are headed by the elected representative of a ward, include members who work for the development of the ward, and host public meetings at regular intervals (M, 2022). Ward committees are constituted in an area where the population is greater than 1 lakh (100,000) and ward sabhas are constituted where the population is less than 1 lakh (Natarajan, 2019). According to the AUGES guidelines, all the local government bodies in urban areas, as described above, are responsible for implementing AUEGS (see Figure 1). Despite the decentralisation of power, the attempt at deepening democracy, and the targeted intervention to address urban poverty and unemployment; AUEGS has only had minimal impact (Chathukulam et al., 2021b). This calls for further investigation.



Figure 1: Local Governance structure in Kerala for urban areas and those bodies responsible for the implementation of AUEGS (Harilal, 2008)

3 Theory

Given the questions of development, governance, and human well-being; this study adopts the capability approach to human development by Amartya Sen as the theoretical framework. According to this approach, the end and means of development is the expansion of human freedoms, understood in terms of functionings and capabilities (Sen, 1999). ‘Functionings’ refer to the *activities and states of being* that a person actively engages in and ‘capabilities’ refer to the various combinations of functionings that people have the *opportunity* to choose or obtain (Blečić et al., 2013; Day, 2017). Examples of functionings include being healthy, sheltered, nourished, safe, and educated. Substantive capabilities can include the freedom or opportunity individuals have to be healthy, nourished, and educated, to live disease free, to participate in socio-political life, and to move around freely (Banerjee, 2015; Sen, 2004b). There is no fixed list of capabilities that individuals should choose or obtain; instead, Sen advocates for fruitful public participation and discourse on what capabilities should be included

based on the particular social reality (Sen, 2004b). Human freedom is considered the ability of an individual to achieve the functioning and capabilities that they have reason to value (Chopra & Duraipah, 2008). According to Sen (1999), development also requires the removal of major sources of unfreedom such as poverty, poor economic opportunities, systematic social deprivations, and neglect of public facilities. Sen (1999) also defines five interconnected instrumental freedoms that are crucial components of development: political freedom, economic facilities, protective security, social opportunities, and transparency guarantee (see Section 3.4). The role of societal arrangements, institutions, and public policy is to enhance and guarantee these freedoms so as to enable people to achieve their capabilities (Hansen et al., 2015; Sen, 1999). In this manner, institutions and individuals themselves are seen as active agents in the role of development and change, rather than simply recipients of development projects (Sen, 1999).

3.1 Thinking differently about development

This approach to human development helps us think of and assess development differently (Day, 2017).

3.1.1 The role of income

Within the 'weak sustainability' paradigm of sustainable development, the development indicators of income per capita, Net National Product (NNP), and Gross Domestic Product (GDP) are used as indicators for the total stock of capital, that is, the natural or manufactured capital necessary for development (Boda & Faran, 2018). Under the weak sustainability paradigm, welfare maximisation and well-being are considered to be achievable through market mechanisms, operationalised through cost-benefit analyses, and measured in monetary units (Boda & Faran, 2018; Day, 2017). This paradigm has been critiqued widely for its focus on monetary-based measures and its inability to capture critical functionings and important aspects of well-being (Boda & Faran, 2018; Day, 2017). As Sen explains, income-based measures of development are insufficient as they do not explain the unfreedoms that result in low income (Banerjee, 2015). Other critiques of this approach include the assumption that monetary wealth and material needs are equally important; that is, there is equivalence and substitutability in producing wealth and satisfying material and physiological needs (Boda & Faran, 2018; Day, 2017). Further, this approach is confined to the economic realm and does not consider the importance of exercising political choice and agency from outside the economic domain (Boda & Faran, 2018). Using aggregate measures of development, such as GDP, hides the differences between individuals and groups (Day, 2017). These

limitations are challenged by the capabilities approach to human development that is aligned with the 'human development approach' to sustainable development (Boda & Faran, 2018).

In the capabilities approach, Sen acknowledges the importance of income from work in people's ability to lead dignified lives and how the lack of income results in several deprivations related to poverty and unfreedoms (Banerjee, 2015). Sen agrees that there is a link between material wealth and human freedoms but questions the practice of using monetary income as a sole measure of well-being (Boda & Faran, 2018). In this capabilities approach, wealth, income, and money are considered necessary *means* to expand important capabilities and achieve a number of important development *ends*; but are not valuable in understanding deprivations and unfreedoms or such poverty (Banerjee, 2015). The capabilities approach focuses on the expansion of individuals' capabilities to transform wealth and income into satisfactory material and physiological needs. By following the theory of the capabilities approach, development policies and programmes should focus on expanding human freedoms rather than on simply increasing income or GDP as the latter does not guarantee individuals the capabilities to lead the lives they value (Sen, 1999). Thus, the capabilities approach challenges the narrow monetary-based measures of development in the weak-sustainability paradigm.

3.1.2 Focusing on the individual

Unlike using aggregate methods (NNP and GDP) to measure development that hides differences between individuals, the capabilities approach has a strong focus on the individual. There is key recognition within this approach of individual freedom in choosing which functionings they wish to engage in and how individuals can shape their own futures if provided with adequate social opportunities (Sen, 1999). Here, individuals are given *agency* over their development rather than being passive recipients of development programmes or being represented as aggregate figures in a large dataset (Sen, 1999). There are two forms of agency, or freedoms of choice, from the capabilities literature that is relevant to this thesis: active agency and collective agency. Active agency refers to the ability of individuals to be able to decide for themselves and shape their own destiny; which can be understood as an agent-oriented view of agency (Sen, 1999). Collective agency refers to the process whereby agents, that is, citizens and representatives, can reason and deliberate together and engage in decision-making processes to arrive at a policy or action which is suitable to many (Crocker & Robeyns, 2009; Sen, 1999). Stemming from this focus on agency, Sen (2004a) also argues for pushing the boundaries of defining sustainable development promoted by Brundtland and Solow, to include a

broader perspective of human beings as agents whose freedoms are important, rather than merely evaluating their living standards. It is important to note here that individual agency does not exist in isolation, rather it is still bound and complimented by the various social arrangements available to individuals; including their social, economic, and political opportunities (Sen, 1999).

The capabilities approach also acknowledges individual diversities, differences, and unique characteristics and circumstances that affect their well-being (Banerjee, 2015; Day, 2017). This stems from Sen's Marxist-influenced understanding of humans as individuals with diverse needs and characteristics that affect their functionings and well-being (Banerjee, 2015). Thus the capabilities approach takes human diversity into account by focusing on the plurality of capabilities and functions, and by focusing on the personal and socio-environmental factors that enable individuals to convert resources into functionings and their capability set (Banerjee, 2015). The analysis of well-being at the individual level is an advantage of this approach as it facilitates a focus on the systematic inequalities that occur with social units such as the family or a community (Day, 2017). This is not to say that group capabilities are ignored in this approach, rather, they are valued only to the extent that individuals prescribe value and importance to them (Day, 2017).

3.2 Capabilities and human-environment interactions

The capability approach to human development helps address concerns related to human-environment interactions as it highlights the dependency of many capabilities and instrumental freedoms on environmental resources (Day, 2017; Schlosberg, 2012). When these resources are compromised, individuals' abilities to obtain capabilities and expand their freedoms are hindered (Day, 2017). Climatic and environmental conditions, including temperature and exposure to extreme events, also impact how individuals can make use of incomes and commodities as the material basis for their well-being (Sen, 1999). Therefore, within the capability approach, the role of the state, institutions, societal arrangements, policy, and legislation is to protect the right to a healthy environment, which is instrumental in achieving human capabilities and ensuring that individuals do not suffer from environmental conditions that hinder their capabilities (Day, 2017; Hansen et al., 2015; Holland, 2008; Sen, 1999). By acknowledging the importance of particular aspects of the environment to improve human well-being, ecological support systems that make functionings possible can be provided (Schlosberg, 2012).

By adopting Sen's approach that there is no fixed list of human capabilities and that the important capabilities can be decided through public deliberation amongst those concerned, adaptation policies that address local environmental issues and target the removal of specific unfreedoms can be developed (Day, 2017; Schlosberg, 2012; Sen, 2004b). Thus, the capabilities approach is relevant to this study for understanding the decision-making process related to the conservation of urban commons that enable individuals to expand their capabilities and improve their well-being. This will be further discussed in the analysis section through examples from the field.

3.3 Capabilities, labour, and employment

The capabilities approach offers valuable insights into how people's well-being is affected by the presence or absence of employment opportunities. Sen (1999) writes that in the absence of employment, there is a loss of income essential for expanding relevant capabilities. Unemployment hinders instrumental freedoms, causes psychological harm, results in declining skills and self-confidence, disrupts family relations and social life, and exacerbates inequalities and social exclusions based on gender, race, and other socio-economic identities (Sen, 1999). However, Sen's theorisation has received criticism for not considering the freedom or possibility of working resulting from interconnected abilities and opportunities in equivalence to other capabilities (Banerjee, 2015). This gap is addressed in this thesis by considering income generating work as a critical capability, as suggested by Banerjee (2015).

3.4 Applying the capabilities approach to the Study of AUEGS

The application of the capabilities approach in assessing AUEGS is adapted from Chung (2010) and Hansen et al. (2015) (Figure 2). Under this adapted conceptual framework, individuals should have certain relevant primary assets and instrumental freedoms to achieve their capabilities (Hansen et al., 2015). Institutional structures are required to provide instrumental freedoms, and through exercising their agency, individuals can transform assets and freedoms to achieve their desired combination of capabilities and functionings (Chung, 2010; Hansen et al., 2015; Sen, 1999). This conceptual framework was selected for this thesis due to the difficulty in directly capturing and measuring the notion of 'capability' (Blečić et al., 2013). Focusing on assets and freedoms as requirements for achieving capabilities makes the assessment more structured, given the operational constraints of this theoretical framework (Blečić et al., 2013; O'Byrne et al., 2022). It was also selected due to the lack of data and difficulty in retrieving data needed to measure critical functionings (see Section 4.7).

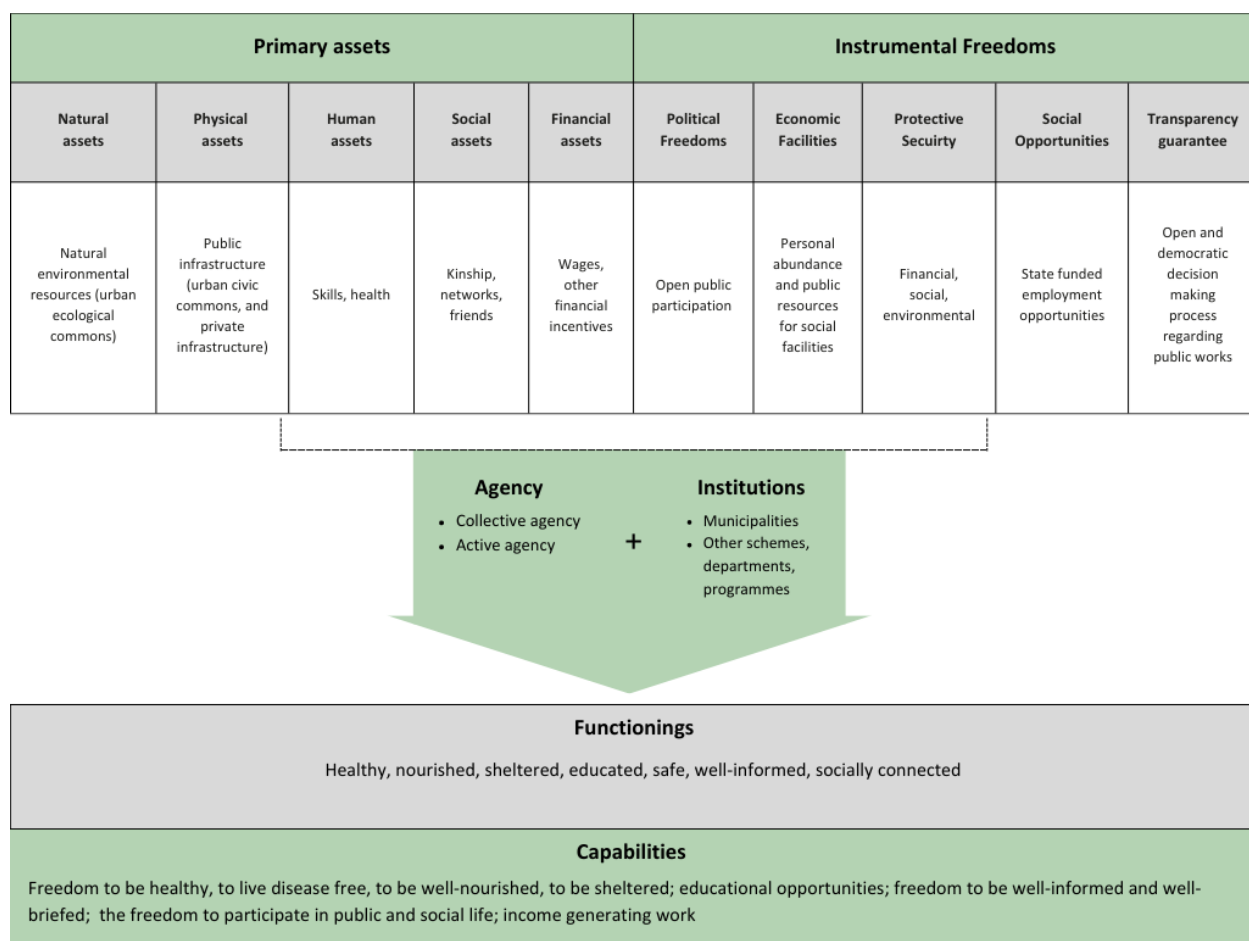


Figure 2: Adapted conceptual framework (Chung, 2010; Hansen et al., 2015)

Primary assets are the foundation for development and the expansion of human freedoms (O’Byrne et al., 2022). Hansen et al. (2015) understand primary assets in terms of human assets (health, education), natural assets (entitlements to land and access to resources), and physical assets (access to infrastructure). Influenced by the World Bank (2000), Chung (2010) interprets assets as human assets (basic labour, skills, health), natural assets (land), physical assets (access to infrastructure), financial assets (savings), and social asset (kinship, networks, friends). In the context of this research, using a combination of the above two frameworks and with reference to the aims of AUEGS, the primary assets are identified as: Natural assets (natural environmental resources, in this case, urban ecological commons), Physical assets (public infrastructure, in this case, urban civic commons, and private infrastructure), Human assets (skills, health), Social assets (kinship, networks, friends), and Financial assets (wages, other financial incentives).

In this study, instrumental freedoms are assessed in terms of political freedom, economic facilities, protective security, social opportunities, and transparency guarantee. Political freedoms refer to opportunities that people have to make decisions regarding their governance system and the political rights individuals have within democracies including participatory rights, dissent, and critique (Sen, 1999). Economic opportunities refer to conditions that enable individuals to use economic resources for consumption, production, and exchange; that is, the opportunities that people have to be a functioning part of the economy (Sen, 1999). Protective security refers to the fixed or targeted institutional arrangements that provide assistance to individuals such as unemployment benefits or disaster relief (Sen, 1999). Social opportunities refer to those arrangements that society makes for effective participation in economic and political activities and can include arrangements for education, justice, health, and equity (Sen, 1999). Transparency guarantee refers to the assurance, openness, and trust that is needed in preventing corruption, irresponsibilities, and underhand dealings in society (Sen, 1999).

Institutions, both formal and informal, play an important role in the process of development by providing undifferentiated rights and instrumental freedoms to all individuals to enable them to achieve the life that they value (Chopra & Duraiappah, 2008; Sen, 1999). In this study, the institutions that play an important role in the development process are formal institutions, of which there are two. One, the municipalities of the districts selected for the study that are responsible for implementing AUEGS in their respective wards and for issuing job cards to those individuals who wish to register in the scheme. Two, other government schemes, programmes, and departments that work in collaboration with AUEGS to undertake certain public works or provide additional benefits to the beneficiaries. The role of institutions has been discussed in Section 5.

4 Methods

4.1 Research Design

Adapting the methods and conceptual framework developed by Hansen et al. (2015) and Chung (2010), this research uses fieldwork drawing on qualitative methods, complemented by a thorough examination of the AUEGS guidelines and theory. Qualitative methods were useful for the purpose of this research as it allows for the exploration of individuals' behaviour and actions, and how they are influenced by social structures (Scheyvens & Storey, 2003b). In this thesis, the focus is on understanding whether and how people's well-being is influenced by the provision of an employment guarantee through AUEGS.

Qualitative methods are more useful in identifying complex human freedoms, understood in terms of capabilities and functionings than less nuanced quantitative measures of well-being such as income. In this thesis, the theory and the conceptual framework guided the methods by indicating *what to observe*, *what data to collect*, and *how to collect data* in order to answer the research questions. Understanding development in terms of capabilities and functionings led me to ask specific and direct questions about primary assets and instrumental freedoms. For the purpose of this study, the qualitatively constructed fieldwork included the techniques of interviews and observations.

4.2 Fieldwork methods

4.2.1 Selection of sites and sampling

I undertook fieldwork in Kerala, India, in January and February 2023, in four municipalities: Alappuzha (Alappuzha district), Wadakkanchery (Thrissur district), Palakkad (Palakkad district), and Maradu and Kalamassery (Ernakulam district) (Figure 3). These municipalities were selected based on handpicked sampling and snowball sampling methods (O’Leary, 2004). There were two broad criteria for selecting the municipalities: one, those municipalities where AUEGS was actively being implemented; and two, those municipalities that had environmental issues that AUGES works were attempting to address. Kalamassery municipality was the only municipality identified through snowball sampling as it was referred to me by the overseer of another municipality (Aluva municipality) where AUEGS works had been halted due to funding issues. Several other municipalities were contacted following the dual criteria established above. However, the officials declined interview requests due to busy schedules towards the end of the financial year and a lack of funds to implement AUEGS. In Maradu and Kalamassery municipalities, site visits were not possible due to certain unforeseen circumstances as communicated by the AUEGS officials in the respective municipalities.

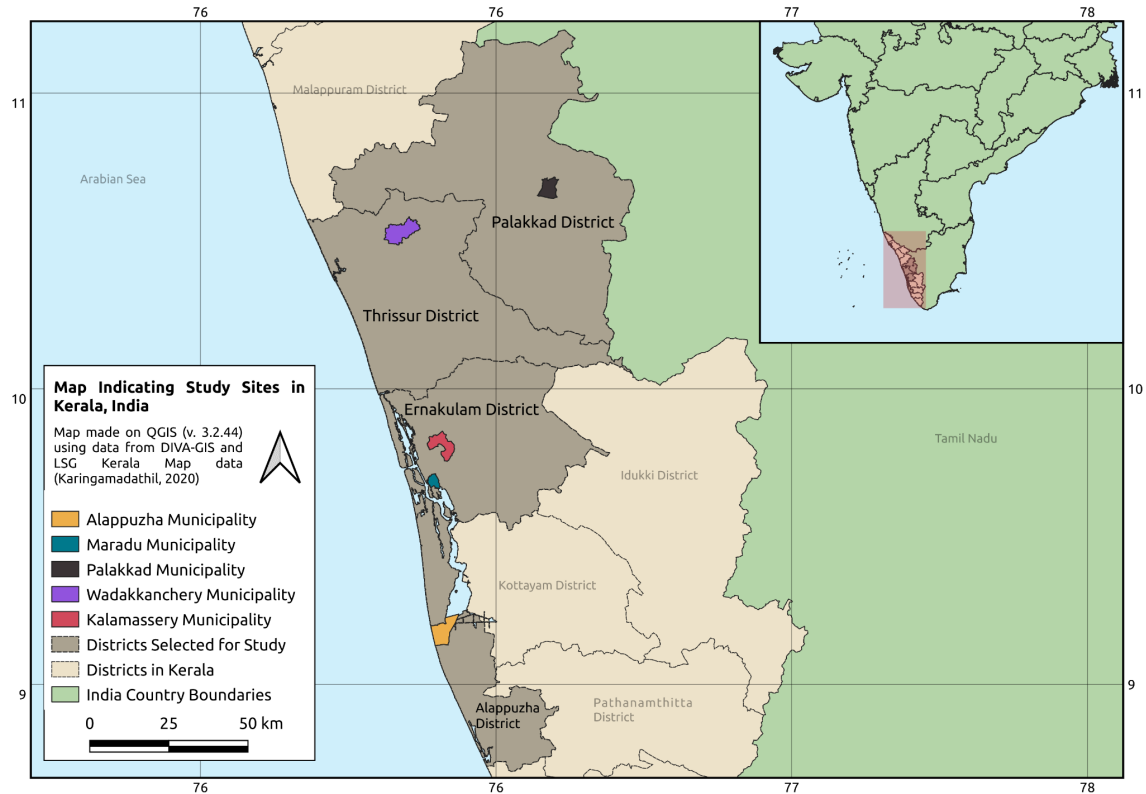


Figure 3: Map indicating study sites in Kerala, India (DIVA-GIS, n.d.; Karingamadathil, 2020)

4.3 Data collection

4.3.1 Interviews

Once the sites for the study had been selected and the officials contacted and informed about my research, a translator and I proceeded to visit each municipality and conducted semi-structured interviews. Finding a translator was based on informed choices (O’Leary, 2004). The translator selected for this thesis had prior experience working with AUEGS and local governance in Kerala and was bilingual in Malayalam and English. Therefore, they understood the nuances of the research and even provided me with useful sources regarding local governance in Kerala. Three sets of interviews were conducted for this research: A, B, and C. Interview set ‘A’ was with the local government officials of AUEGS such as overseers of the scheme, assistant engineers, data entry operators, coordinators, and accountants (n=10 individuals). Five such interviews were conducted, one in each of the five municipalities visited. These interviews were important to understand the public works focusing on urban commons and the challenges with the implementation of the scheme in the municipality. For interview set ‘B’, three group interviews were conducted with the beneficiaries of the scheme in three out of the five municipalities

visited (n=12 individuals). These interviews were important to understand whether beneficiaries' well-being improved through their involvement in the scheme. Interview set 'C' was with an expert in urban development and politics from the Kerala Institute of Local Administration (KILA) that was crucial for learning more about the barriers to AUEGS' success and recommendations to improve the scheme (n=1 individual) (Table 1). Interview questions were developed based on specific aims, but due to the interviews being semi-structured, the questions were not fixed, rather they followed a more conversational style (O'Leary, 2004) (guiding interview questions can be found in Appendix 1). All interviews lasted between one to two hours and were conducted in Malayalam, the language spoken in Kerala; except the expert interview which was conducted in English.

Table 1: Three sets of interviews conducted for this study (Author, 2023)

Interview Set 'A': Local government officials			
Date	District	Municipality	Interviewees
28 January 2023	Ernakulam	Maradu	One local government official in the AUEGS department of the municipality (1)
1 February 2023	Alappuzha	Alappuzha	Four local government officials in the AUEGS department of the municipality (4)
9 February 2023	Palakkad	Palakkad	Three local government officials in the AUEGS department of the municipality (3)
10 February 2023	Thrissur	Wadakkanchery	One local government official in the AUEGS department of the municipality (1)
20 February 2023	Ernakulam	Kalamassery	One local government officials in the AUEGS department of the municipality (1)
Interview Set 'B': Beneficiaries of the scheme			
Date	District	Municipality	Interviewees
1 February 2023	Alappuzha	Alappuzha	Beneficiaries of the scheme in the municipality (4)
9 February 2023	Palakkad	Palakkad	Beneficiaries of the scheme in Palakkad (5)
10 February 2023	Thrissur	Wadakkanchery	Beneficiaries of the scheme in the municipality (3)
Interview Set 'C': Expert interview			
Date	Location		Interviewees
30 March 2023	Online, Zoom		Senior Urban Fellow; Kerala Institute of Local Administration (1)

The translator and I conducted formal interviews with officials of AUEGS in the municipality offices where they worked and with the expert over Zoom. Here the interviews, albeit semi-structured, had a more formal connotation to them. We addressed the interviewees as 'sir' or 'ma'am', gave the interviewee a few days of advance notice regarding the interview, and there was professional behaviour maintained between the interviewee and ourselves. Further, it was only through the officials that we could receive permission to interview the beneficiaries of the scheme and visit the sites where the public works took place; which is indicative of the formal governance hierarchy and their roles as gatekeepers (Scheyvens & Storey, 2003a). The interviews with the beneficiaries and AUEGS coordinators were more informal. We addressed the beneficiaries and coordinators as *chechi* (Malayalam for sister as all the beneficiaries and coordinators interviewed identified as women) and the interviews were conducted outside a formal office setting; either in a park, at a beneficiary's house, at a restaurant during lunch, at the beneficiary's sites of work, a school, or at a resting spot during the beneficiaries' lunch break. This enabled us to establish a more informal relationship with the interviewees (O'Leary, 2004). The structure of these informal interviews remained semi-structured but there was more flexibility to discuss personal stories and backgrounds that aided the interview and helped in having open and honest communication (O'Leary, 2004).

One-on-one interviews were most commonly done with the officials of AUEGS and with the expert, and group interviews were conducted with the beneficiaries of the scheme. Despite starting as one-on-one interviews with the officials, other officials present in the municipality office often chimed in. In most of the group interviews with the beneficiaries, there was one person who acted as the moderator of the group; either the coordinator of AUGES in the wards or one of the beneficiaries. The role of the moderator was ideal as they had worked closely with the beneficiaries over a period of time and had a more intimate relationship with them; thus their role complemented the aim of the group interviews (Katz-Buonincontro, 2022a). However, in some of the group interviews, the moderator had the tendency to speak on behalf of the entire group. In these situations, the translator and I would encourage the other group members to answer the questions to include them in the discussions as well. Prior to the group interviews, a verbal positionality statement to acknowledge our role as researchers was provided to the beneficiaries of AUEGS as the translator and I were not members of their group (Katz-Buonincontro, 2022b).

All interviews conducted were recorded and later transcribed and translated. This procedure was followed to respect the time of the officials and beneficiaries. All questionnaires were translated into Malayalam by the translator and a copy was shared with the interviewees upon their request before the interview.

4.3.2 Site observations

After the interviews with the officials, the translator and I requested them to take us to the sites where the public works under AUGES were being undertaken by the beneficiaries of the scheme. At the sites, I used photographs and videos to document the public works that had been done, serving as my primary sources (Scheyvens & Storey, 2003b). Additionally, some of the AUEGS officials interviewed shared photos, documents, and videos of the public works that had been undertaken in the past; which acted as a useful secondary source.

4.4 Ethical considerations

Qualitative research requires the understanding and acknowledgement of the power dynamics between the researcher and the 'researched', and the politics of doing research, especially with vulnerable groups (Scheyvens & Storey, 2003b). Most beneficiaries interviewed were older women from vulnerable socio-economic backgrounds, making the ethical considerations more pertinent in the research process. Three ethical concepts were guaranteed during the research process: informed consent, privacy, and conflict of interest (Scheyvens & Storey, 2003a).

Informed consent refers to the process whereby potential participants freely and with full understanding agree to be a part of the research process (Scheyvens & Storey, 2003b). An important aspect of this is respecting people's freedom to not participate in the research process if they wish and to withdraw at any time in the process (Scheyvens & Storey, 2003a). In this research project, prior to every interview, oral informed consent was taken and a brief of my project was presented. Privacy, anonymity, and confidentiality were observed throughout the research process by keeping the identity of the participants, especially the beneficiaries of AUEGS, private. No photographs and videos showing the faces of the interviewees were taken unless they themselves suggested that I take them. All audio recordings, field notes, and transcripts were stored in a safe location and were used only for the purpose of research. At any point in the interviews when the interviewees shared information that they mentioned was "off the record", those statements were not transcribed. No conflicts emerged during the

research process as all the interviewees were informed regarding the research in advance of the interviews in an honest and transparent manner. Additionally, no financial incentives were provided to the interviewees during the research to ensure that the participation of interviewees was completely voluntary. Apart from their time, the interviewees required no other investments to participate in the research.

4.5 Data Analysis

The qualitative data collected from interview set 'A' and 'B', that is, the interviews with the AUEGS officials and beneficiaries were analysed using thematic analysis and the software NVivo (Release 1.7.1). Thematic analysis refers to the methodological process of identifying, analysing, and reporting patterns (themes) present in a data set (Braun & Clarke, 2006). A 'theme' can be understood as capturing something important about the data with respect to the research questions asked in the project (Braun & Clarke, 2006). In this paper, I used the guidelines provided by Braun and Clarke (2006, 2021) to conduct my analysis following a 'codebook thematic analysis' version. This version uses a structured coding framework for documenting an analysis wherein the themes are developed early on but can be refined or new themes can be developed through inductive data engagement and the analytic process (Braun & Clarke, 2021). In this study, the coding framework was useful in identifying the themes of 'primary assets', 'instrumental freedoms', and other established elements of the conceptual framework (refer to Section 3.4). 'Barriers to the scheme's success', 'functionings', and the 'challenges experienced by the beneficiaries' are some themes that were identified inductively through engagement with the qualitative data (for all codes and themes developed, see Appendix 2). The thematic analysis method as proposed by Braun and Clarke (2006, 2021) is useful for the purpose of my study given its flexibility for qualitative research. It involves six phases and its use in the context of my research is presented in Table 2. Once the coding of both sets of interviews was completed, I was able to compare the themes and codes of relevant primary assets, instrumental freedoms, and functionings across the two sets of interviews so as to contrast the claims made by the officials regarding the beneficiaries' well-being.

Table 2: Phases of thematic analysis (Braun & Clarke, 2006, 2021)

	Phases	Description of the process
1	Data familiarisation and writing familiarisation notes	• All verbal data collected from the semi-structured interviews was translated from Malayalam to English and transcribed by the translator in a word-by-word manner • All field notes, audio files, photographs, and other material shared by the interviewees was compiled and organised • The data was imputed to NVIVO 12, the interviews were read, annotations were made to get comfortable with the content of the interviews, and initial ideas were noted down
2	Systematic data coding	• Initial coding of the data was done in a systematic manner across the entire data • By using the codebook version for the thematic analysis, the initial coding of the qualitative data collected was done according to the research questions, the theoretical lens (the capabilities approach to human development), and the conceptual framework used in this study • New codes were also identified through inductive engagement with the text
3	Generating initial themes from coded and collated data	• Codes were sorted into particular themes; either existing themes from the coding framework or new ones that emerged inductively
4	Developing and reviewing the themes	• Themes were reviewed
5	Refining, defining and naming themes	• Themes were refined and finalised
6	Writing the report	• The themes and codes across the interview sets were compared • The results of the study were written

The qualitative data from interview set ‘C’ was not analysed using thematic analysis. After transcribing the interview, notes were made to get familiar with the data and the content was used only for answering research question 3.

4.5.1 A note on coding of public works

The coding of a few public works observed during the site visits into primary assets require some explanation. Sanitation works, especially regarding waste management, have been coded under public infrastructure (physical assets) as urban waste can be considered as an urban common or a common

pool resource to ensure decentralised solid waste management (Cavé, 2020). Water conservation works have been coded under both physical assets and natural assets as the AUEGS guidelines consider ‘water’ as a natural resource that requires conservation and as a pertinent public infrastructure that must be provided to all and maintained to prevent disasters like flooding (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). Street cleaning has been coded under natural assets and physical assets as it not only for urban beautification, but also for maintaining public infrastructure.

4.6 Reflexivity in research

In sustainability science, it is important to be a ‘self-reflective’ scientist by being reflexive regarding one’s positionality and normativity and being a part of a social dynamic that one seeks to change (Wittmayer & Schöpke, 2014). Reflexivity is the way in which the attributes of the researcher condition and influence the representation of the researched, and how these representations themselves can help recondition the researcher (Stirling, 2006). In sustainability research, this means that the researcher must engage in the practice of being reflexive regarding their own normativity and the internal and external power dynamics (Wittmayer & Schöpke, 2014). Throughout my research process, I have practised self-reflexivity by being conscious of my own position of power as an upper-caste, upper-class, urban Indian from a European university researching an employment scheme for communities, especially women, coming from marginalised socio-economic backgrounds. As a self-reflexive scientist, I have attempted to present the data and narrate the research by being mindful of biases, values, language, and personal motivations. Instead of objectively analysing phenomena using a neutral and disengaged lens, I have tried to create relations of trust with those interviewed to have open and meaningful dialogues that enable situated knowledge (Wittmayer & Schöpke, 2014). Furthermore, my use of a theory from the field of sustainable development ensures that the issues brought up through the course of the study are discussed in a normative manner, aiming for social change.

4.7 Data limitations

This study has a few limitations. Out of the 14 districts, 87 municipalities, and 6 municipal corporations in Kerala, only 5 municipalities from 4 districts were visited for this study (DoECC, 2022). Therefore, the observations made in this study need not necessarily be similar in the other municipalities and districts not considered for this study, limiting the study’s generalisability. Another limitation is the lack of quantitative data in this study. The use of quantitative data that measures specific functionings could

have complemented the qualitative approach well. Further, a quantitative analysis of trends regarding person days supplied and funds allocated would have given a better understanding of how the scheme has performed over time. However, due to poor technology and lack of access to this data, the quantitative analysis could not be conducted.

5 Results

In this section, I first examine whether urban commons are improved by focusing on the natural and physical assets addressed by AUEGS public works. Following that, I briefly discuss how these assets also affect human well-being. Subsequently, I explore the remaining primary assets and instrumental freedoms targeted by the AUEGS public works and their implications on human well-being. Wherever relevant, I include examples of how institutions and agency influence urban commons and human well-being.

5.1 Research Question 1: Improvement of Urban Commons

5.1.1 Natural assets

In the AUEGS guidelines, there is a strong focus on public works that target natural resource management and the conservation of urban commons (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). Based on the site visits and interviews, the public works aimed at improving existing natural assets and introducing new ones can be divided into four categories: plantation works, water conservation, small-scale farming, and urban beautification. The officials interviewed said that plantation works undertaken included mango stein, chengalikodan (a traditional variety of bananas), Miyawaki plantations, bamboo, and hybrid varieties of jackfruit (**Figure 4**).



Figure 4: Bamboo plantation work done under AUEGS in Wadakkanchery. Fully grown bamboo grass (left), bamboo sapling (right) (Photos shared by the official in Wadakkanchery, February 10, 2023)

They also mentioned water conservation works that included well construction and recharge; cleaning, desilting, and renovating ponds, canals, wells, streams, and rivers; construction of soak pits; creating bunds; and the construction of rainwater pits and storage systems (**Figure 5**).



Figure 5: Water conservation works done under AUEGS in Wadakkanchery. Bund creation (left) and well construction (right) (Photos shared by the official in Wadakkanchery (left) and taken by the author (right), February 10, 2023)

During the site visits to where public works were being undertaken, I observed small-scale farming activities that included flower cultivation in public spaces, and vegetable farming (cultivation of okra, tomato, eggplant, spinach, tapioca, chilli) (**Figure 6**). However, these activities were limited to a small scale due to the built-up nature of the urban spaces. Subhiksha Keralam, the integrated food security

scheme in Kerala, was also reported to work alongside AUEGS in some municipalities. Under this scheme, AUEGS workers can undertake vegetable farming, help in the maintenance of plantations, and engage in land development activities. AUEGS was also noted to work alongside Kudumbashree, the poverty eradication and women empowerment scheme implemented by the Government of Kerala. Most beneficiaries interviewed said that they were also a part of Kudumbashree, and in some municipalities, the officials reported the possibility of selling farming produce grown through AUEGS in markets organised by Kudumbashree.

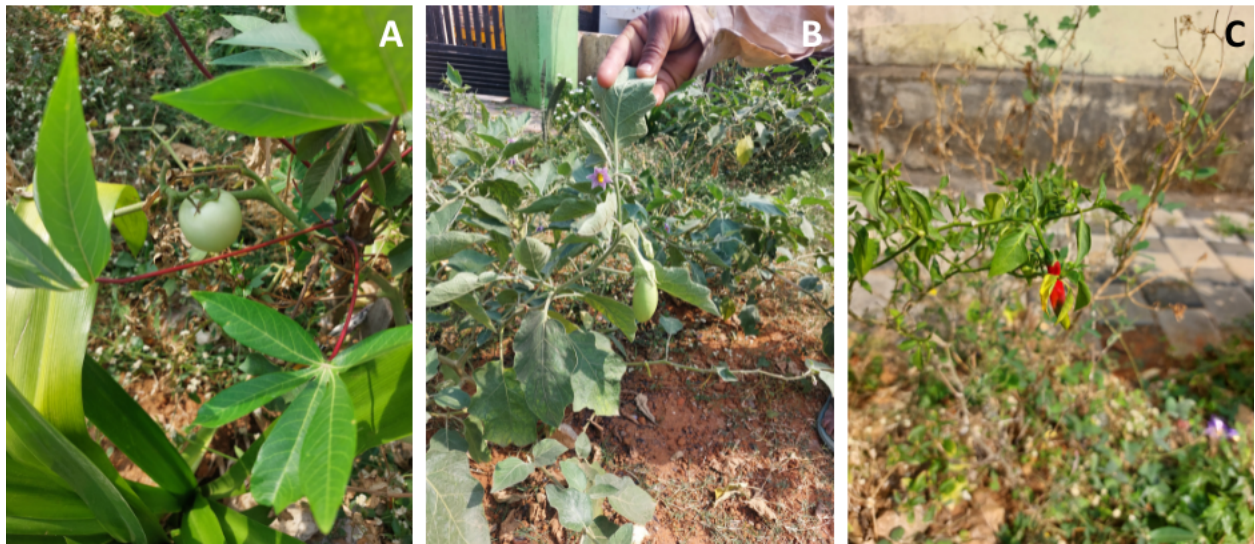


Figure 6: Vegetable farming done in the compound of an anganwadi, public child care centre, in Palakkad. Vegetables grown include tomatoes (A), brinjal (B), and chillies (C) (Photos taken by the author, February 9, 2023)

I also observed urban beautification works such as the planting of marigold flowers on the highway and street cleaning with planting and maintaining trees on the sides of the streets (**Figure 7**).



Figure 7: Urban beautification work done under AUEGS in Alappuzha and Palakkad. Marigold saplings planted along the highway in Alappuzha (left) (Photo taken by the author, February 1, 2023); street cleaning and tree plantation on the sides of the streets in Palakkad (right) (Photo taken by the author, February 9, 2023)

Through these public works, AUEGS improves existing natural assets in the community like public spaces and rivers, and introduces new ones such as small-scale farms and wells; thereby improving urban ecological commons.

5.1.2 Physical assets

Another focal area of AUEGS is to improve physical assets. From reading the scheme guidelines, visiting the sites, and conducting interviews, the physical assets can be divided into two types: public infrastructure (urban civic commons) and private infrastructure for disadvantaged individuals (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.).

Public infrastructure can be further divided into three categories: construction works, water conservation works, and sanitation works. The officials reported that road construction was a common type of public work that beneficiaries engaged in, although I did not observe this during my visits. Other construction works included re-constructing sidewalls destroyed during the 2018-2019 floods and using coconut coir for supporting walkways. Water conservation was another public work that was popularly reported by the officials. This included cleaning drains and streams to prevent flooding; building wells

that included parapet construction, cement plasterings, painting, and applying concrete; recharging wells; and re-constructing bund walls that collapsed during the 2018 and 2019 floods. During my visit to Wadakkanchery, I observed the construction of a well (Figure 5, right). Sanitation works were also observed during my visits to the sites which included the cleaning of the side of roads (Figure 8); and waste collection, disposal, and segregation (Figure 9). In four municipalities visited, the officials interviewed said that Haritha Karama Sena (HKS) workers were very active and often worked with AUEGS workers for waste collection and segregation. HKS is a state programme that is responsible for the collection of non-biodegradable waste from houses and establishments to shredding units for recycling (*Kudumbashree / About : Haritha Karma Sena*, n.d.). The Suchitwa Mission, which provides technical support to local governments for waste management, was also reported to collaborate with AUEGS on sanitation works in some municipalities. This is another example of the plurality of institutions working for improving urban commons.



Figure 8: AUEGS workers engaged in street cleaning in Palakkad (Photo by author, February 9, 2023)



Figure 9: Plastic waste segregation in Alappuzha (Photo taken by the author, February 1, 2023)

The public works performed under AUEGS to provide private infrastructure can be divided into two themes: housing and other works. The officials interviewed mentioned the provision of pucca houses (permanent infrastructure) to beneficiaries through the convergence of Pradhan Mantri Awas Yojana - Urban (PMAY(U)) and Livelihood Inclusion and Financial Empowerment (LIFE) with AUEGS. PMAY-U is a mission under the Government of India to address the housing shortage in urban areas by ensuring a pucca house for all eligible urban households (*PMAY-HFA(Urban)*, n.d.). In Kerala, PMAY-U was merged with AUEGS in the 2018-19 financial year and provides beneficiaries with 90 person-days and INR 311 per day as wages to participate in the construction of their home (Chathukulam, 2021). Newspaper reports indicate that this convergence has led to an increase in the number of person-days generated under AUEGS, increased asset creation, and has increased the budget allocation for AUEGS (Chathukulam, 2021; Kumar, 2022). Further, this convergence has encouraged individuals who are otherwise reluctant to engage with AUEGS works, to register with this scheme (Chathukulam, 2021). Although I did not personally visit the PMAY-U houses, I saw several photos and documents showing the construction of PMAY houses in the municipalities visited (Figure 10). Further, some beneficiaries interviewed were PMAY recipients themselves or knew other AUEGS beneficiaries who were.



Figure 10: PMAY document of a beneficiary indicating the phase of construction completed in Palakkad (left); completed PMAY house with PMAY sign on the front of the house in Palakkad (right). All personal information such as application number, name, and faces have been covered to maintain confidentiality (Photo taken by the author, 9 February, 2023)

As reported by the officials and mentioned in the guidelines, other private infrastructure works undertaken in AUEGS include the construction of cattle sheds; pond construction in private land and encouraging aquaponics and aquaculture; and mini farming within beneficiaries' households. These sites were not visited during the field visits.

Through these public works, the scheme displays its potential in improving existing civic commons and in creating new ones. It also facilitates the creation of houses and other private infrastructure that are crucial private assets for the urban poor and vulnerable.

5.2 Research Question 2: Improvement of Human Well-being

In addition to the improvement of both civic and ecological commons, natural assets (Section 5.1.1) and physical assets (Section 5.1.2) can contribute to the improvement of human well-being through the expansion of certain basic functionings and capabilities. For example, small-scale farming (natural assets) can contribute to nourishment and health, well-construction (natural and physical assets) can help improve health, and housing through PMAY-U (physical assets) can provide shelter and safety. Therefore, the urban commons improved under this scheme have a direct impact on the human well-being of the beneficiaries and of the community at large. The following section will further explore how other assets and freedoms can improve human-wellbeing.

5.2.1 Human assets

AUEGS focuses on improving the human assets of health and skills. Although the AUEGS guidelines do not mention provisions of safety equipment for beneficiaries engaged in public works, the officials interviewed, stated that they provided the beneficiaries with safety equipment (gloves, boots, masks) to perform the public works. In one municipality, the officials provided beneficiaries with additional money to buy the safety equipment themselves. However, the beneficiaries made it clear that either no such safety equipment was provided to them to undertake the public works or when it was provided, the equipment was of poor quality, resulting in them having to spend their own money to buy new ones. As one interviewee said about drainage cleaning, “It (drainage) had a foul odour and basic amenities were not even provided. We are not equipped with uniforms, gloves, boots or anything” (interview, February 9, 2023). The lack of safety equipment was observed during the site visits and in the photographs shared by the officials (Figure 11). The guidelines also do mention the provision of clean drinking water, first aid kits, and shade; which are basic needs required for long and hot working days. No such amenities were observed during the field visits. Thus, it can be discerned that health, safety, and the basic needs of the workers are not well guaranteed by the scheme and by those implementing it. This limits the beneficiaries’ freedom to be healthy and to be disease free, which are important capabilities.



Figure 11: Workers cleaning public drains without protective equipment in Palakkad (left) and Wadakkanchery (right) (Photo taken by the author (left), 9 February 2023; and shared by the official in Wadakkanchery (right), February 10, 2023)

Regarding skill training, although the AUEGS guidelines do not mention any training for the beneficiaries, the officials from a few municipalities mentioned that the AUEGS workers receive skill training for masonry, but most often, the beneficiaries picked up the necessary skills on the job. The beneficiaries interviewed did not report receiving any skill training for any sort of public work. Therefore, the lack of skill training does not contribute to the expansion of any educational opportunities, a basic capability, and could possibly cause safety and health issues.

5.2.2 Social assets

Although not the main focus of the scheme, the officials interviewed reported that the social assets of the beneficiaries involved in the scheme, including kinships, social networks, and friendships, were improved. They mentioned that some benefits of working as a beneficiary in AUEGS included the ability to socialise with other women and in turn, receive knowledge about other schemes, loans, and opportunities. However, when asked about these social assets, the beneficiaries interviewed mentioned that they did not receive any such benefits. This prevents the realisation of elementary capabilities such as the opportunities to be informed and well-briefed, and the freedom to participate in public life.

5.2.3 Financial assets

One of the main focal areas of AUEGS is to improve financial assets through the provision of regular wages and other financial incentives. In the financial year 2021-22, the wages were increased from INR 291 per day to INR 311 per day (Figure 12). These wages are similar to the wages provided under MGNREGA in Kerala. However, beneficiaries reported that there was often a delay in wages due to funding issues and poor organisation of the scheme. Several beneficiaries mentioned that the wages received were unsatisfactory and insufficient to match the rising cost of living in urban areas. As one beneficiary said, “With the increasing prices for our basic necessities, this wage may not be sufficient” (interview, February 9, 2023). The beneficiaries also expressed that the 100 person-days provided in the scheme for every household was insufficient; and due to the wages being provided per person-day worked, the wages they received were less. Further, AUEGS beneficiaries from two municipalities visited mentioned that the number of person-days generated every year rarely reached 100 and that for the first time in the 2021-2022 financial year, four or five beneficiaries received 100 working days. This results in the beneficiaries receiving irregular and insufficient income, especially if they depend on AUEGS as their main source of income. It was also briefly mentioned in one municipality that the workers had to travel to work sites that were far away from their homes and the transport charges

exceeded their wages adding to their financial burdens. Regarding other financial incentives, the officials mentioned that those beneficiaries who had completed 100 person-days of employment in AUEGS would receive a bonus of INR 1000 for Onam, an official state festival in Kerala. However, due to the lack of person-days provided by this scheme, it appears unlikely that many beneficiaries would be recipients of this bonus. Therefore, the insufficient and irregular income provided under AUEGS limits the expansion of most basic capabilities for which income is an important means such as the freedom to be healthy, educated, and nourished. Despite the issues regarding income and other financial benefits, the beneficiaries interviewed did mention that the income they received was important to them

SL NO	APPLICANT ID	APPLICANT NAME	BANK NAME	BRANCH NAME	ACCOUNT NO	AADHAR NO	IFSC CODE	NO OF DAYS	TOOL RENT	WAGES AMOUNT	TOTAL AMOUNT
1	1-1		UNION BANK OF INDIA	PALAKKAD			UBIN0001134	19	95	5909	6004
2	1-1		STATE BANK OF INDIA	MERCY COLLEGE PALAKKAD			SBIN0001157	21	105	6531	6636
3	1-1		STATE BANK OF INDIA	PALAKKAD ADB			SBIN0001440	15	95	3421	3516
4	1-1		STATE BANK OF INDIA	ENGLISH CHURCH ROAD PALAKKAD			SBIN0000893	15	75	4665	4740
5	1-1		UNION BANK OF INDIA	PALAKKAD			ANDB0001134	19	95	5909	6004
6	1-1		STATE BANK OF INDIA	MERCY COLLEGE PALAKKAD			SBIN0001157	19	95	5909	6004
7	1-1		UNION BANK OF INDIA	PALAKKAD			UBIN0001134	12	60	3732	3792
8	1-1		STATE BANK OF INDIA	MERCY COLLEGE PALAKKAD			SBIN0001157	19	95	5909	6004
9	1-1		STATE BANK OF INDIA	PALAKKAD			SBIN0001157	18	90	5598	5688
10	1-1		PUNJAB NATIONAL BANK	G B ROAD K M S BUILDING			PUNB00129200	14	70	4354	4424
11	1-1		CANARA BANK	SULTANPET			CNRB0000811	16	80	4976	5056
12	1-1		STATE BANK OF INDIA	MERCY COLLEGE PALAKKAD			SBIN0001157	10	50	3110	3160
13	1-1		CANARA BANK	PALAKKAD BIG BAZAR			CNRB0000811	21	105	6531	6636
14	1-1		STATE BANK OF INDIA	T B ROAD PALAKKAD			SBIN0001157	2	10	622	632
	1-1		STATE BANK OF INDIA	MERCY COLLEGE PALAKKAD			SBIN0001157	20	100	6220	6320
	1-1		CANARA BANK	PALAKKAD MAIN			CNRB0000811	14	70	4354	4424
								250	1250	77750	79000
PHOTO CHARGES											
1		SREYALSAM STUDIO	FEDERAL BANK	PALAKKAD	10810100269935		FDR10001081				60.00
										GRAND TOTAL	79060.00

Figure 12: Document showing workers' wage details in Palakkad, ward number 32. Applicant ID, beneficiaries' names, account number, and Aadhar number have been covered to maintain confidentiality (Photo taken by the author, February 9, 2023)

5.2.4 Political freedoms

The process of deciding what AUEGS public works are to be undertaken in the wards and municipalities helps expand political freedoms. As highlighted in the scheme's guidelines and during the interviews with the government officials and the beneficiaries, the public (including the beneficiaries, residents, and farmers); can, during ward sabha meetings, suggest which public works should be undertaken in the ward based on their concerns and the requirements of the ward. If the suggested works fall within the

criteria of the scheme, the ward councillors will include them in the scheme's action plan and send it to the authorities higher up the governance hierarchy for approval.

At each of the governance stages, there are further steps and dialogues between the various actors involved; which is indicative of the detailed democratic decision-making process and the political entitlements that are associated with democracies (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.; Sen, 1999). The open participation at the ward sabha meetings, which is an exercise of basic political rights and of collective agency, makes it likely that there is an open conceptualisation and understanding of the various needs of the public. This improves the likelihood of there being a response to the needs of the public (Sen, 1999). This primarily includes economic needs but in the case of AUEGS, it can be extended to include environmental and infrastructural needs of the community that are instrumental in achieving human capabilities. In this way, AUEGS helps in the expansion of political freedoms and in turn, various capabilities of the community as a whole such as the power to participate in socio-political matters, and the freedom to be well-nourished and to be sheltered.

5.2.5 Economic facilities

One of the main aims of the AUEGS is to provide employment opportunities to vulnerable families in the absence of employment and other income-generating opportunities; thereby expanding the beneficiaries' economic opportunities and enabling individuals from vulnerable families to become a functioning part of the economy through consumption, production, and exchange. As Sen (1999) writes, economic facilities can help generate personal abundance as well as public resources for social facilities. This is what AUEGS aims to do by targeting poverty eradication through the improvement of beneficiaries' personal abundance and urban commons (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). Therefore, AUEGS in itself can be considered an opportunity for the expansion of economic facilities. Interviews with beneficiaries indicated some economic facilities that were expanded through their employment in AUEGS. Beneficiaries mentioned that the wages they received through employment in this scheme enabled them to cover household expenses and was a better option than being unemployed. The women beneficiaries interviewed also expressed that by receiving wages in their own accounts, they did not have to ask men for money, which they considered to be the biggest benefit of this scheme. Therefore, they considered employment in AUEGS as a means of financial independence, to become productive members of the economy, and as a way to build their self-esteem. However, as discussed previously in Section 5.2.5, irregular and insufficient wages hinder the economic facilities of

the beneficiaries, further limiting their opportunity to be a functioning part of the economy. This curbs the expansion of basic capabilities for which income is an important means.

In a few municipalities visited, the beneficiaries mentioned that they had the opportunity to sell the produce from farming activities (Section 5.1.1) and take the profits from the sale. However, the opportunities to actually sell produce grown through public works in the scheme and earn profits are very limited as only small-scale farming is possible in the urban built-up areas. Therefore, beneficiaries cannot rely on this as a source of economic facilities.

5.2.6 Protective Security

For this study, the provision of 100 person-days of guaranteed employment at a fixed wage rate for vulnerable individuals in urban areas, where there are no other employment opportunities, through a state-sponsored scheme, can be considered as an example of protective security (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). This provides individuals with income-generating work, an important functioning (Banerjee, 2015). Two themes of protective security emerged from reading the guidelines and from the interviews with government officials: environmental and social. AUEGS attempts to offer environmental protective security through public works targeting the protection and management of urban civic and ecological commons; which are crucial for achieving human capabilities and ensuring that individuals do not suffer from environmental conditions that hinder their capabilities. With respect to social protective security, an official said that this scheme provided important assistance to elderly people, especially older women, who do not have anyone to look after them, and their involvement in AUEGS is a rescue from loneliness and other issues. Furthermore, the democratic process with which the public works to be undertaken are decided, makes it likely that arrangements for the above types of protective security will be instituted (Sen, 1999).

Environmental protective security is expanded through AUEGS albeit some caveats as discussed in Section 5.2.5. However, there are certain concerns regarding the expansion of social protective security for beneficiaries, especially for women, that have been elaborated upon in Section 6.1. These concerns hinder the expansion of freedoms and reinforces inequalities.

5.2.7 Social opportunities

In this study, AUEGS itself can be considered as a 'social opportunity' or an 'arrangement' that aims to improve beneficiaries' participation in economic and political activities through the provision of an employment guarantee. Echoed by all officials interviewed, AUEGS aims to provide employment opportunities to 'unskilled' labour and enable them to become productive members of society by receiving regular fixed wages through engagement in public works. However, as discussed previously, insufficient and irregular income (Sections 5.2.3 and 5.2.5) can hinder beneficiaries' participation in economic activities that further limit the expansion of key capabilities such as the freedom to be healthy, educated, and nourished. The decision-making process of public works under AUEGS, on the other hand, improves beneficiaries' power to participate in the socio-political life of the community, a substantive capability.

5.2.8 Transparency guarantee

The open and democratic process of deciding what AUEGS public works are to be undertaken in the wards and municipalities helps expand transparency guarantees. It provides the assurance that is needed for preventing corruption and irresponsible decision-making that may prefer some people's interests over others. The AUEGS guidelines are also strict about private contractors being excluded from the project and emphasise the focus on creating employment and public assets (*Ayyankali Urban Employment Guarantee Scheme (AUEGS)*, n.d.). This ensures that the public works undertaken are not done for the purpose of profits, but rather for the well-being of the beneficiaries and the public.

A note on the interconnectedness of primary assets and instrumental freedoms:

Different primary assets are interconnected. In the case of AUEGS, financial assets, natural assets, and physical assets are connected as beneficiaries can improve their financial assets (income) through the sale of small-scale farming produce (natural assets) and through the construction of their own houses (physical assets). Sen (1999) has written about the interconnectedness between various instrumental freedoms and how freedoms of different kinds can work to strengthen one another. For example, political freedoms and transparency guarantees, that are expanded through the decision-making process under AUEGS, are necessary for instituting environmental and social protective security arrangements. Primary assets and instrumental freedoms are also interconnected. For example, the provision of financial assets through AUEGS creates a condition that enables individuals to use economic resources for consumption, production, and exchange; thereby expanding relevant capabilities (Sen, 1999).

6 Discussion

The main results of research questions one and two are: although the AUEGS guidelines aim to improve beneficiaries' functionings and capabilities through the introduction of new and expansion of existing primary assets and instrumental freedoms; certain structural and implementation issues prevent functionings and capabilities from being realised. Although urban commons are improved through AUEGS, only a limited expansion of human freedoms of the beneficiaries takes place and in some instances, existing inequalities of gender, class, and caste, are deepened. This requires a look into the structural and implementation issues and calls for recommendations that can target the identified barriers to AUEGS' success. The following sections cover this.

6.1 Research Question 3A: Challenges to the effective performance of the scheme

The challenges to the effective performance of the scheme in enabling capabilities to be realised can be divided into two categories: structural issues and implementation issues.

6.1.1 *Structural issues*

Structural issues refer to the inherent problems within the scheme's guidelines and its formulation. One main structural issue identified is that AUEGS is developed to mirror MGNREGA. There are two caveats related to this.

One, in India, urban and rural poverty have essential differences. While rural poverty is characterised by irregular incomes, uncertainty of agriculture, and severe debt; urban poverty is distinguished by the lack of adequate housing, rising costs of living, and the lack of basic services (Ahmed & Sharma, 2021; Rakodi, 1995). In Kerala, although achievements in overall poverty reduction have been made; poverty and unemployment remain high in the urban areas (Pavianoose, 2021). Therefore, as a replica of MGNREGA, the AUEGS guidelines do not target the specific needs of the urban poor. For example, MGNREGA provides employment, income, and security to the rural poor during the lean season of agriculture, which is the risky period between planting and harvesting when jobs become scarce (M.J, 2012). Conversely, the urban poor do not face such seasonal unemployment gaps that put them at risk; their challenges of unemployment are year-round. Therefore, the AUEGS wages are insufficient for the rising costs of living in the urban areas and the person-days generated are insufficient to tackle unemployment.

The second caveat, related to the first one, is that the public works in AUEGS are similar to those under MGNREGA. This does not account for the unique topography of the rural-urban continuum and high rates of urbanisation in Kerala (Cyriac & Firoz C, 2022). For example, some of the additional income generating public works such as farming and plantation works are successful in municipalities with more rural characteristics (such as Wadakkanchery), because it is similar to the works undertaken in MGNREGA. In Maradu and Palakkad municipalities, the officials mentioned that the farming was done at a very small scale and the produce was insufficient to sell and was instead given to school children or very needy families in the area (discussed in Section 5.2.5). As the official from Palakkad said, “We can only make economic benefit if it [farming] is done on a large scale, but here it was small scale farming. Only if the productivity is higher, we can sell them in markets” (interview, 9 February, 2023). The reason for this is the lack of public land available due to the high rates of urbanisation.

6.1.2 Implementation issues

Problems related to funding were widely mentioned by the officials interviewed as the main barrier towards the effective implementation of the scheme. According to them, due to the delayed funding and the limited amount of funds from the State government, they were unable to hire staff that would improve the efficiency of implementation. The expert interviewed mentioned that lack of funds was also the reason for the limited supply of person-days by the local governments. The delay in funds also translates to inconsistency in wages for the workers, which demotivates them from joining the scheme. As one official rightly pointed out, “These are needy people who work under this scheme. And they need the amount at the correct time” (interview, 28 January, 2023). Another barrier that discouraged workers from joining the scheme was the lack of provisions for health and safety such as drinking water, first aid kits, boots, gloves, masks, and shade at the work sites. There was also a lack of knowledge regarding public works by the general public and a lack of skill training for the beneficiaries; two issues identified through interviews with the officials and beneficiaries respectively that limited the extent and types of public works undertaken.

6.2 Research Question 3B: Recommendations to improve the scheme

Stemming from these identified challenges, the main recommendations I make are as follows:

6.2.1 Recommendations for improving the structure

One main recommendation is to adapt AUEGS to the requirements of the urban poor. This can be done by increasing the wages and person-days generated under the scheme. By increasing the wages under AUEGS to account for inflation and rising costs of living in urban areas, it can put upward pressure on wages offered in other informal and ‘unskilled’ jobs, thereby improving the welfare of the urban poor even outside AUEGS. This effect has been observed in rural areas with MGNREGA, given all other market factors remain consistent (Ministry of Rural Development, Government of India, 2012). The increased wages and person-day can also encourage workers to participate in the scheme, thereby improving the public works undertaken. As one beneficiary mentioned, “... actually they should increase the working days. If they are providing us more working days, we are willing to join” (interview, 1 February 2023). This could also improve the financial assets of the beneficiaries, and expand their economic facilities and protective security, enabling the expansion of relevant capabilities.

Public works that can provide additional income to the beneficiaries and target urban socio-ecological requirements are needed, which can be identified through the stratified implementation of the scheme. The expert interviewed mentioned that there are three categories of municipalities: those having rural characteristics (Waddakanchery, for example), those having urban characteristics (Alappuzha, Kalamassery, Palakkad, and Maradu, for example), and those that are classified as corporations. Each of these types of municipalities has varying degrees of urbanisation; thus, the type of public works that are needed and the approaches to implementation vary. By employing a stratified approach rather than a universal or dichotomous ‘urban/rural’ approach, the goals of AUEGS regarding public works and the well-being of beneficiaries can be better realised in a more decentralised manner.

6.2.2 Recommendations for improving implementation

The issues with funding must be reviewed and resolved at the State level to ensure a smooth flow of funds to the municipalities. The convergence of other State and national government schemes and programmes, such as PMAY-U with AUEGS, can be a solution to the issue of limited funds. To address the issue regarding the lack of awareness about the scheme by the public, the expert made two suggestions. Firstly, to simplify or ‘demystify’ the guidelines so that people are aware what public works can be undertaken in AUEGS and can recommend them in the ward meetings. Secondly, to develop the nexus between the workers and the public by doing public works in a participatory manner; such as, by involving the public in irrigation and maintenance of public trees. In this way, AUEGS can become more

participatory and can expand the political freedoms of the beneficiaries and the public. Skill training can improve the educational opportunities of the beneficiaries and expand the types of public works undertaken. Further, it is important to ensure that workers have access to health and safety measures at the work sites with funds allocated specifically for this in every municipality.

6.3 A note on caste and women's participation

Although AUEGS is championed as prioritising women's labour force participation and as providing employment opportunities for the most vulnerable, it is important to take a deeper look into the demographics of the beneficiaries and the underlying reasons for their participation.

Officials stated that only women workers register under this scheme as men do not want to work for such a low wage unless they are experiencing extreme poverty or have certain health issues that prevent them from travelling and working skilled jobs. They also mentioned that women are more likely to take up 'unskilled' work, whereas men have the qualifications to take up 'skilled' jobs. Although women's enrollment in AUEGS can be seen as an exercise of agency by becoming active agents of change, instead of passive recipients of welfare-enhancing help (Sen, 1999), it may also be viewed as the 'feminisation of poverty'. This is because AUEGS provides low-paying, physically demanding work opportunities for urban poor women who have limited fall-back options and limited access to skilled work (Kumar, 2022; Ministry of Rural Development, Government of India, 2012). Additionally, the selective targeting of women's labour imposes a 'double burden' of household labour and urban commoning outcomes, including farming and public infrastructure development; without any sufficient compensations and provisions as discussed in Section 5.2 (Neimark et al., 2020). Therefore, while women's high enrollment in AUEGS initially seems like empowerment, it ultimately reinforces gender inequalities that exist at the societal level.

Further, the targeting of vulnerable individuals in performing public works, especially sanitation works under AUEGS, relies on and perpetuates caste inequalities. The association between caste and the purity/pollution axis have become institutionalised in India with municipalities continuously employing individuals from Dalit and lowered caste groups for sanitation works (I, 2020). This is what is observed in the case of AUEGS. As stated by the officials during the interviews, many public works undertaken in this scheme are sanitation works including drainage cleaning and waste management, and those who

perform them are individuals from Dalit and lowered caste groups. Furthermore, caste inequalities are manifested in the form of the lack of safety and protective equipment while performing sanitation tasks which reinforces the idea that Dalit lives are dispensable. For this very reason, sanitation works are one of the most hazardous jobs in India (I, 2020).

The employment of lowered caste and Dalit women in AUEGS (and their enrollment, due to the systemic absence of other 'skilled' jobs) to perform sanitation works perpetuates the layered caste and gender inequalities, especially in the absence of safety measures and the otherwise limited opportunities for the expansion of capabilities. Despite these inequalities alluding to larger societal issues, development schemes like AUEGS should be restructured to improve the bargaining power of the AUEGS beneficiaries. This can happen to some extent through the recommendations provided in Section 6.2 that target the improvement of beneficiaries' capabilities and functionings and the removal of unfreedoms. However, structural shifts at the societal level are required alongside this for concrete changes to come about.

6.4 Relevance to Sustainability Science

Sustainability science highlights how 'old' yet persisting problems of poverty, inequality, and hunger, are exacerbated by 'new' challenges such as biodiversity loss, climate change, and water scarcity (Jerneck et al., 2011). The latter undermines the ecosystem services which are crucial for addressing the former problems (Jerneck et al., 2011). Sustainability science also encourages simultaneous addressing of 'new' and 'old' challenges (Jerneck et al., 2011). This thesis studies both the 'old' challenges of unemployment and poverty, the 'new' problems of declining quality of life in urban spaces due to inadequate public infrastructure and poor quality of urban commons, and assesses the potential of AUEGS in simultaneously addressing the 'new' and 'old' challenges. Thus, this thesis contributes to the field of sustainability science. Furthermore, the theoretical framework of the capabilities approach to human development is useful in understanding the key characteristics of human-environment interactions, in guiding these interactions along sustainable pathways, and in providing creative solutions to the 'new' and 'old' problems; as I display in this thesis (Jerneck et al., 2011; Kates et al., 2001; Sen, 1999). Using the capabilities approach - which has traditionally been used in the field of development studies - combines different ways of knowing and learning and potentially enables a diversity of actors across the governance spectrum to synergistically (Jerneck et al., 2011; Kates et al., 2001). By using the capabilities approach in a creative way to study a UEGS, a 'phenomenon' that has not yet been studied using this

theory, I employ reflexivity which is relevant in conducting research in the field of sustainability science (Burawoy, 1998; Horlings et al., 2020).

6.5 Theoretical limitations

Despite the capabilities approach being an appropriate theoretical framework for this study as argued in Section 3, there are a few limitations of the framework that make its way into my analysis. Firstly, the capabilities approach is anthropocentric with its sole focus on human well-being and considers the environment as an instrument for achieving well-being (Heikkinen et al., 2019). While analysing urban commons, my focus has been on their role in improving human well-being, rather than viewing them as entities that requisite well-being. Recent scholarship on the capabilities approach has challenged this caveat by using radical democracy to acknowledge the intrinsic values of non-human entities; and is therefore, better suited to meet the challenges of the Anthropocene (Heikkinen et al., 2019). Secondly, although Sen (2004a) advocates for public participation and discourse to arrive at common capabilities, he does not provide any structure on how these deliberations can take place. Therefore, in this thesis, there is no discussion or evaluation of the ward sabha meetings as appropriate structures for discussing capabilities. Further, the capabilities approach does not fully capture important aspects of justice, such as recognition and power (Schlosberg, 2012). The lack of discussion around power dynamics between beneficiaries and officials is a reflection of this limitation.

7 Conclusion

Debates around UEGS have gained prominence in India due to the dual crisis of urban unemployment and of declining life quality in urban spaces. In Kerala, AUEGS has emerged as a potential solution to address the dual crisis in urban spaces. Modelled after MGNREGA, its successful rural counterpart, AUEGS is considered to be well-envisioned and rights-based, aimed at improving the livelihood of individuals and the quality of urban commons. However, as discussed in this thesis, AUEGS has failed to reach its potential due to structural and implementation issues.

Using the capabilities approach to human development, this thesis examined the improvement in beneficiaries' well-being and of urban commons under AUEGS. This study, based on qualitatively structured fieldwork in five districts in Kerala, shows that although the AUEGS guidelines aim to improve beneficiaries' functionings and capabilities, implementation and structural issues prevent them from

being realised. Even though urban commons are improved through AUEGS, only a limited expansion of human freedoms of the beneficiaries takes place and in some instances, existing inequalities are deepened. This study offers recommendations that target the structural and implementation concerns; which, if incorporated, can improve the well-being of beneficiaries through the expansion of human freedoms.

This study contributes to the expansion of the capabilities framework by providing a unique example of how it can be used in the field of sustainability science. A UEGS developed on the lines of the capabilities approach can be useful in addressing several 'old' and 'new' sustainability challenges. Two extensions of this project for future research can be recommended. One, a study of the natural assets conserved under this scheme and its influence on the local socio-ecological and climatic systems would be useful to advocate for the alignment of AUEGS with the Kerala State Action Plan on Climate Change 2023-2030. Two, a comparative study of AUEGS and UEGS in other Indian states would be useful to advocate for a nation wide UEGS.

8 References

Ahmed, A., & Sharma, S. (2021, July 6). Rural India sinks deeper into debt as COVID-19 wipes out work.

Reuters.

<https://www.reuters.com/world/india/rural-india-sinks-deeper-into-debt-covid-19-wipes-out-work-2021-07-06/>

Ayyankali Urban Employment Guarantee Scheme (AUEGS). (n.d.). Retrieved September 25, 2022, from

www.indiaspend.com

Banerjee, M. M. (2015). Applying Sen's Capability Approach to Understand Work and Income among Poor People in India. *The Journal of Sociology & Social Welfare*, 42(3).

<https://doi.org/10.15453/0191-5096.3921>

Basole, A., Idiculla, M., Narayanan, R., Nagendra, H., & Mundoli, S. (2019). *State of Working*

India: Strengthening Towns through Sustainable Employment: A Job Guarantee Programme for

Urban India.

- Blečić, I., Cecchini, A. 'Bibo,' & Talu, V. (2013). The Capability Approach in Urban Quality of Life and Urban Policies: Towards a Conceptual Framework. In S. Serreli (Ed.), *City Project and Public Space* (pp. 269–288). Springer Netherlands. https://doi.org/10.1007/978-94-007-6037-0_17
- Boda, C. S., & Faran, T. (2018). Paradigm Found? Immanent Critique to Tackle Interdisciplinarity and Normativity in Science for Sustainable Development. *Sustainability*, 10(10), Article 10. <https://doi.org/10.3390/su10103805>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18, 328–352. <https://doi.org/10.1080/14780887.2020.1769238>
- Burawoy, M. (1998). The Extended Case Method. *Sociological Theory*, 16(1), 4–33. <https://doi.org/10.1111/0735-2751.00040>
- Cavé, J. (2020). Managing urban waste as a common pool resource. In *The Informal Economy Revisited* (pp. 189–194). Routledge.
- Chathukulam, J. (2021, June 9). Kerala's model of urban employment guarantee scheme worth looking at. *Deccan Herald*. <https://www.deccanherald.com/opinion/panorama/keralas-model-of-urban-employment-guarantee-scheme-worth-looking-at-995413.html>
- Chathukulam, J., Joseph, M., V, R., Balamurali, C., & George, S. (2021a). *An Evaluation Report on Ayyankali Urban Employment Guarantee Scheme (AUEGS) in Kerala | Centre for Rural Management (CRM)*. <https://crmindia.org/2021/02/02/an-evaluation-report-on-ayyankali-urban-employment-guarant>

ee-scheme-auegs-in-kerala-2/

- Chathukulam, J., Joseph, M., V, R., Balamurali, C., & George, S. (2021b). Ayyankali Urban Employment Guarantee Scheme in Kerala Well Envisioned But Poorly Executed. *Economic and Political Weekly*, *LV* no 15.
- Chopra, K., & Duraiappah, A. (2008). *Operationalizing capabilities in a segmented society: The role of institutions* (pp. 362–382). <https://doi.org/10.1017/CBO9780511492587.012>
- Chung, Y.-F. (2010). The Orang Asli of Malaysia: Poverty , Sustainability and Capability Approach (MSc dissertation). *Lund University Centre for Sustainability Studies, Lund, Sweden*.
- Crocker, D. A., & Robeyns, I. (2009). Capability and Agency. In C. W. Morris (Ed.), *Amartya Sen* (pp. 60–90). Cambridge University Press. <https://doi.org/10.1017/CBO9780511800511.005>
- Cyriac, S., & Firoz C, M. (2022). Dichotomous classification and implications in spatial planning: A case of the Rural-Urban Continuum settlements of Kerala, India. *Land Use Policy*, *114*, 105992. <https://doi.org/10.1016/j.landusepol.2022.105992>
- Day, R. (2017). A capabilities approach to environmental justice. In *The Routledge Handbook of Environmental Justice* (1st Edition, pp. 124–135). Routledge. <https://doi.org/10.4324/9781315678986-11>
- DIVA-GIS. (n.d.). *Administrative areas/India*. Retrieved May 1, 2023, from <https://www.diva-gis.org/datadown>
- DoECC. (2022). *Kerala State Action Plan on Climate Change 2023-2030*. Directorate of Environment and Climate Change, Department of Environment, Government of Kerala.
- Gidwani, V., & Baviskar, A. (2011). Urban Commons. *Economic and Political Weekly*, *46*. <https://www.epw.in/journal/2011/50/review-urban-affairs-review-issues-specials/urban-commons.html>
- Hansen, M., Faran, T., & O’Byrne, D. (2015). The Best Laid Plans: Using the Capability Approach to Assess

- Neoliberal Conservation in South Africa—The Case of the iSimangaliso Wetland Park. *The Journal of Environment & Development*, 24(4), 395–417. <https://doi.org/10.1177/1070496515598348>
- Harilal, K. N. (2008). Redesigning Local Governance in India: Lessons from the Kerala Experiment. In F. Saito (Ed.), *Foundations for Local Governance: Decentralization in Comparative Perspective* (pp. 75–92). Physica-Verlag HD. https://doi.org/10.1007/978-3-7908-2006-5_4
- Harithakeralam / Local Self Government Department. (n.d.). Retrieved April 20, 2023, from <http://lsgkerala.gov.in/en/projects/harithakeralam>
- Heikkinen, A., Mäkelä, H., Kujala, J., Nieminen, J., Jokinen, A., & Rekola, H. (2019). *Urban ecosystem services and stakeholders: Towards a sustainable capability approach*. https://doi.org/10.26530/OAPEN_1000440
- Holland, B. (2008). Justice and the Environment in Nussbaum’s “Capabilities Approach”: Why Sustainable Ecological Capacity Is a Meta-Capability. *Political Research Quarterly*, 61(2), 319–332.
- Horlings, L. G., Nieto-Romero, M., Pisters, S., & Soini, K. (2020). Operationalising transformative sustainability science through place-based research: The role of researchers. *Sustainability Science*, 15(2), 467–484. <https://doi.org/10.1007/s11625-019-00757-x>
- I, S. (2020). *Of Sewage, Struggle, and the State: Caste and Contractorization in Contemporary Sanitation Work* (India Exclusion Report 2019-20, pp. 163–186). Gurugram. <https://centreforequitystudies.org/>
- Islam, S. N., & Winkel, J. (2017). Climate Change and Social Inequality. In *Working Papers* (No. 152; Working Papers). United Nations, Department of Economics and Social Affairs. <https://ideas.repec.org/p/une/wpaper/152.html>
- Jerneck, A., Olsson, L., Ness, B., Anderberg, S., Baier, M., Clark, E., Hickler, T., Hornborg, A., Kronsell, A., Lövbrand, E., & Persson, J. (2011). Structuring sustainability science. *Sustainability Science*, 6(1), 69–82. <https://doi.org/10.1007/s11625-010-0117-x>

Karingamadathil, M. (2020, November 8). *LSG Kerala Map Data*. GitHub.

<https://github.com/opendatakerala/lsg-kerala-data/releases/tag/1.1.0>

Kates, R. W., Clark, W. C., Corell, R., Hall, J. M., Jaeger, C. C., Lowe, I., McCarthy, J. J., Schellnhuber, H. J., Bolin, B., Dickson, N. M., Faucheux, S., Gallopin, G. C., Grübler, A., Huntley, B., Jäger, J., Jodha, N. S., Kasperson, R. E., Mabogunje, A., Matson, P., ... Svedin, U. (2001). Sustainability Science. *Science*, 292(5517), 641–642. <https://doi.org/10.1126/science.1059386>

Katz-Buonincontro, J. (2022a). Focus groups. In *How to interview and conduct focus groups*.

(2022-79852-004; pp. 47–66). American Psychological Association.

<https://doi.org/10.1037/0000299-004>

Katz-Buonincontro, J. (2022b). Qualitative research essentials. In J. Katz-Buonincontro, *How to interview and conduct focus groups*. (pp. 7–21). American Psychological Association.

<https://doi.org/10.1037/0000299-002>

Kudumbashree | About: Haritha Karma Sena. (n.d.). Retrieved April 13, 2023, from

<https://www.kudumbashree.org/pages/677>

Kudumbashree | What is Kudumbashree. (n.d.). Retrieved April 13, 2023, from

<https://www.kudumbashree.org/pages/171>

Kumar, S. (2022, September 2). *How the rural employment guarantee scheme is a double-edged sword for women* [Text]. Scroll.In; <https://scroll.in>.

<https://scroll.in/article/1031636/how-the-rural-employment-guarantee-scheme-is-a-double-edged-sword-for-women>

Lieten, G. K. (2002). Human Development in Kerala: Structure and Agency in History. *Economic and Political Weekly*, 37(16), 1539–1544.

M, G. (2022, July 19). Area Sabhas and Ward Committees: Power to the people or power with the officials? *Citizen Matters, Chennai*.

<https://chennai.citizenmatters.in/area-sabha-ward-committee-rules-74th-amendment-urban-local-body-43011>

Ministry of Rural Development, Government of India. (2012). *MGNREGA Sameeksha: An Anthology of Research Studies on the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (2006–2012)*. Ministry of Rural Development, Government of India, 2012.

M.J, P. (2012, February 1). 'Provide 100 days employment only during lean agriculture season.' *The Hindu*.

<https://www.thehindu.com/sci-tech/agriculture/provide-100-days-employment-only-during-lean-agriculture-season/article2851150.ece>

Mundoli, S., & Nagendra, H. (2022, January 2). *Kerala scheme shows how to create work opportunities while caring for the environment* [Text]. Scroll.In; <https://scroll.in>.
<https://scroll.in/article/1014561/kerala-scheme-shows-how-to-create-work-opportunities-while-caring-for-the-environment>

Natarajan, A. (2019, May 6). *What can Chennai learn from Kerala and Bengaluru on citizen participation in urban governance?* Citizen Matters, Chennai.
<https://chennai.citizenmatters.in/chennai-citizen-participation-ward-committees-kerala-bengaluru-10075>

Neimark, B., Mahanty, S., Dressler, W., & Hicks, C. (2020). Not Just Participation: The Rise of the Eco-Precariat in the Green Economy. *Antipode*, 52(2), 496–521.
<https://doi.org/10.1111/anti.12593>

O'Byrne, D., Mechiche-Alami, A., Tengberg, A., & Olsson, L. (2022). The Social Impacts of Sustainable Land Management in Great Green Wall Countries: An Evaluative Framework Based on the Capability Approach. *Land*, 11(3), Article 3. <https://doi.org/10.3390/land11030352>

O'Leary, Z. (2004). *The Essential Guide to Doing Research*. SAGE.

- Pavianose, S. (2021). Extent of Urban Poverty in Kerala. *NAGARLOK, LIII*(3rd Issue).
<https://www.iipa.org.in/cms/public/publication/2>
- PMAY-HFA(Urban)*. (n.d.). Retrieved April 3, 2023, from <https://pmaymis.gov.in/>
- Rakodi, C. (1995). Poverty lines or household strategies?: A review of conceptual issues in the study of urban poverty. *Habitat International*, 19(4), 407–426.
[https://doi.org/10.1016/0197-3975\(95\)00037-G](https://doi.org/10.1016/0197-3975(95)00037-G)
- Scheyvens, R., & Storey, D. (Eds.). (2003a). Ethical Issues. In *Development Fieldwork: A Practical Guide*. SAGE Publications. <http://ebookcentral.proquest.com/lib/lund/detail.action?docID=254635>
- Scheyvens, R., & Storey, D. (Eds.). (2003b). Qualitative Research. In *Development Fieldwork: A Practical Guide*. SAGE Publications.
<http://ebookcentral.proquest.com/lib/lund/detail.action?docID=254635>
- Schlosberg, D. (2012). Climate Justice and Capabilities: A Framework for Adaptation Policy. *Ethics & International Affairs*, 26(4), 445–461. <https://doi.org/10.1017/S0892679412000615>
- Sen, A. (1997). Radical Needs and Moderate Reforms. In J. Drèze & A. Sen (Eds.), *Indian Development: Selected Regional Perspectives* (pp. 1–32). Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780198292043.003.0001>
- Sen, A. (1999). *Development as Freedom*. Alfred Knopf.
- Sen, A. (2004a, February 5). Why We Should Preserve the Spotted Owl. *London Review of Books*, 26(03).
<https://www.lrb.co.uk/the-paper/v26/n03/amartya-sen/why-we-should-preserve-the-spotted-owl>
- Sen, A. (2004b). Capabilities, Lists, and Public Reason: Continuing the Conversation. *Feminist Economics*, 10(3), 77–80. <https://doi.org/10.1080/1354570042000315163>
- Stirling, A. (2006). Precaution, Foresight and Sustainability: Reflection and Reflexivity in the Governance of Science and Technology. In J.-P. Voß & R. Kemp (Eds.), *Reflexive Governance for Sustainable*

Development (p. 480). Edward Elgar Publishing Limited.

<https://www.e-elgar.com/shop/gbp/reflexive-governance-for-sustainable-development-9781845425821.html>

Suchitwa Mission / Local Self Government Department. (n.d.). Retrieved April 20, 2023, from

<http://lsgkerala.gov.in/en/lsgd/allied-institutions/suchitwa-mission>

Wittmayer, J. M., & Schöpke, N. (2014). Action, research and participation: Roles of researchers in sustainability transitions. *Sustainability Science*, 9(4), 483–496.

<https://doi.org/10.1007/s11625-014-0258-4>

World Bank. (2000). World development report 2000/2001: Attacking poverty. In *World development report 2000/2001: Attacking poverty*. IBRD/World Bank.

<https://openknowledge.worldbank.org/entities/publication/e32e2552-b75e-56de-9675-107cb047d078>

9 Appendices

9.1 Appendix 1

9.1.1 Guiding questions for interview set 'A': Local government officials

Type of questions	Questions
Introduction to the project and researcher	Hi, we are Sahana and Sreelakshmi, two researchers studying the Ayyankali Urban Employment Guarantee Scheme in Kerala, India. Sahana is from Bangalore and is now doing her Master's in Environmental Studies in Sweden and Sreelakshmi is from Malappuram in Kerala and is currently working in Alappuzha as an intern with KILA. As we mentioned over the phone, we would like to ask you some questions related to AUEGS, especially about the public works undertaken and if there are any challenges regarding its implementation in the municipality. Sahana will be using the answers from this interview for her Master's thesis project and for no other political or personal purposes. If you consent to it (explicitly ask for consent here), we would like to record this interview for our research. At any time if you wish to stop the recording, please let us know and we will do so. Before we begin, do you have any questions? We hope to not take up much of your time.
Background questions	What is your name and role?
	How long have you been associated with AUEGS?
	What are your current responsibilities and what does your day-to-day role involve?
	Can you tell me a little about AUEGS? How is the scheme implemented in the State? (note to self: ask for details about the governance structure and hierarchy, i.e, how is the scheme is implemented at the ward level, municipality level, and district level)
	What types of public works are generally undertaken in this scheme?
	How did the scheme converge with PMAY (Pradhan Mantri Awas Yojana for affordable housing)?
Questions related to public works	What are some of the environmental challenges that exist in the municipality? Have you observed any issues related to urban commons in the municipality; both civic and ecological commons? (note to self: explain here what commons are and give examples)
	What are some examples of the public works that take place in the municipality? How are these public works identified?

	Do the public works target any of the aforementioned environmental challenges or issues to urban commons?
	Is there the possibility to monetise these works? For example, can beneficiaries sell the produce from the urban gardens? (to be asked if this type of public works done in the municipality)
	What are the wages like under AUEGS? Has there been any increase in wages over the years?
	I have heard about asset creation under AUEGS. What are some of these assets?
	What is the demand for these types of work in the municipality? (in terms of high/moderate/low). - Does the demand change according to the season, or does it stay the same throughout the year?
	Who are the people who most often demand employment under this scheme? (in terms of age, gender, and socio-economic group)
	Do migrants from neighbouring states or rural areas seek employment under this scheme? - If yes, why do you think this is the case? - What is the socio-economic background of the migrant workers?
	Since AUEGS has a focus on improving women's labour force participation, do you see many women employed in this scheme? - What is the reason for this? (If not, what do you think can be done to improve women's participation in the scheme?) - What are some of the benefits women have experienced through participation in this scheme? - What are the types of public works that women are engaged in? - Does it differ from the types of work that men do?
	What are some other benefits that workers get by participating in this scheme? E.g. medical treatment, child care (anganwadis) for workers, pension, etc?
	Since Kerala has a high literacy rate and yet there is unemployment, are there any skilled jobs under AUEGS?
	Do the beneficiaries of the scheme have a say in what public works are undertaken in the municipality in this scheme? - If yes, how do they decide/what is the procedure of decision making? - If no, then who decides and how is this decision arrived at?
	Do the beneficiaries use/have access to the urban commons that are managed/conserved under AUEGS?

Questions about governance challenges	How is the implementation of the scheme in your municipality?
	What are some of the challenges that you face in your role with respect to the implementation of the scheme?
	Why do you think these challenges exist?
	How can these challenges be overcome?
Future of the scheme	What are some ways in which you think the scheme can be improved?
	Do you think a scheme like this should be implemented across the country?

9.1.2 Guiding questions for interview set 'B': Beneficiaries of the scheme

Type of questions	Questions
Introduction to the project and researcher	Hi, we are Sahana and Sreelakshmi, two researchers studying the Ayyankali Urban Employment Guarantee Scheme in Kerala, India. Sahana is from Bangalore and is now doing her Master's in Environmental Studies in Sweden and Sreelakshmi is from Malappuram in Kerala and is currently working in Alappuzha as an intern with KILA. We would like to ask you some questions related to your work in AUEGS, especially about what public works you do in the scheme, and what benefits you receive from working in AUEGS. Sahana will be using the answers from this interview for her Master's thesis project and for no other political or personal purposes. If you consent to it (explicitly ask for consent here), we would like to record this interview for our research purpose. At any time if you wish to stop the recording, please let us know and we will do so. Before we begin, do you have any questions? We hope to not take up much of your time.
Background questions	What is your name and where are you from?
	How long have you been residing in the municipality? (if the respondent is not from Kerala, then ask when they migrated to Kerala)
	How long have you been a part of this scheme?
	When did you first hear about the scheme?
	What was the process by which you enrolled in the scheme?
	In the past, what other jobs did you have?
	Do you have any other employment apart from working under this scheme (specify that this is work for which wages are paid)?

	Are you a beneficiary of any other scheme (Kudumbashree, MGNREGA, self help groups, any agriculture/farming schemes etc)?
Questions related to public works	What are some environmental issues that exist in the municipality? (If flooding is mentioned, ask: does this become worse during the monsoon rains?)
	What are the different types of work that is undertaken in this scheme in your area? Are some of the public works targeting these environmental problems?
	Who decides what work is to be carried out? (if the respondent says that the overseer/engineer decides, then ask if they have a say in the deciding)
	Are you given any skills training before starting the work?
	AUEGS has a focus on improving women's work force participation, do you see many women employed in this scheme? Why/why not? Is there a difference between the work done by men and women?
	If the public works include urban farming, gardens, flowers etc; then ask: - Can you use some of the fruits and vegetables that you grow in the garden in your home? - Can you sell them and earn income? Are these works done on private or public land?
	Have you worked under the PMAY scheme to build your house? - If yes, ask: what was the process like? - If not, ask: have you heard about this from anyone else? Would you like to do this work?
Questions related to wages and employment	What is your daily wage? Are you satisfied with the wages?
	Has there been a change in the wages since you started working? (i.e, have the wages increased)
	Do you get your wages on time or is there a delay?
	How many days in a year are you employed in this scheme?
	What is your opinion about the number of person days? (100 days)
	What are some benefits you have received from the scheme? E.g. medical treatment, child care (anganwadis) for workers, pension, etc?
Future of the scheme	According to you, how can the scheme be improved?
	What other public works do you think can be done in the scheme?
	Would you encourage others to join the scheme?

9.1.3 Guiding questions for interview set 'C': Expert Interview

1. Can you tell me a bit about your role in KILA and what your research focus is?
2. What is your experience working with local governance in Kerala?
3. Can you tell me a bit about the local governance structure, roles, and duties in municipalities/ urban areas?
4. What has your work with AUEGS been about?
5. How does AUEGS fit into the larger discussion around local governance and democracy?
6. Do you see AUEGS as a rights based scheme/ safety net for individuals?
7. What are some other schemes that are beneficial for job-seeking individuals in urban areas?
8. Do you think there are some issues with adapting MGNREGA to the urban setup without changing some crucial aspects such as wages? Are the wages insufficient for the cost of living in urban areas?
9. How can skill training be incorporated into AUEGS public works?
10. Ward committees play an important role in deciding what public works can be taken up, can you tell me a bit more about this process?
 - a. How can more people be encouraged to participate in ward committees?
11. Is the hierarchy of governance structure in any way influencing the functioning of AUEGS? In my experience of talking with the overseers of the scheme, it appears to be a very hierarchical mode of governance wherein the final decision lies with the secretary, therefore, can it be that by it being more decentralised, AUEGS can function better?
12. How can more people be encouraged to participate in local democracy?

9.2 Appendix 2

9.2.1 Final set of codes for interview set 'A': Local government officials

Cells in green indicate those themes and sub-themes that had been pre-decided based on the theoretical framework, conceptual framework, the research questions, and aims of the study (deductive) and cells in yellow indicate those themes, sub-themes, and codes that were inductively arrived at.

Themes	Sub-themes	Codes	Sub-codes	Municipalities	Total number of references
Primary assets	Natural assets	Farming		All	22
		Water conservation		All	27
		Plantation works		Maradu, Wadakkanchery	6
		Urban beautification		Palakkad, Maradu	3
	Physical assets	Public infrastructure	Sanitation works	All	24
			Construction works	Palakkad, Wadakkanchery, Kalamassery, Maradu	6
			Water conservation	All	27
		Private infrastructure for disadvantaged individuals	Housing	All	7
			Other works	Palakkad, Maradu, Wadakkanchery	3
	Human assets	Health		Palakkad, Wadakkanchery, Kalamassery, Maradu	7
		Skills		Alappuzha, Maradu,	5

				Wadakkanchery	
	Social assets			Kalamassery, Maradu	3
	Financial assets	Wages		All	8
		Other financial incentives		Palakkad, Maradu, Wadakkanchery, Alappuzha	12
Instrumental Freedoms	Political freedoms			All	12
	Economic facilities			All	24
	Protective security	Environmental		All	57
		Social		Kalamassery, Wadakkanchery	4
	Social opportunity			All	26
	Transparency guarantee			All	20
Institutions	Municipalities			All	7
	Other government programmes, schemes, departments			All	30
Barriers to the success of the scheme	Structural			Palakkad, Maradu, Wadakkanchery	9
	Implementation			All	24
Recommendations to improve the scheme				All	15
Environmental issues in the municipalities				All	18

Functionings	Socially connected			Kalamassery, Maradu	4
	Sheltered			All	5
	Self-esteem			Kalamassery, Maradu, Wadakkanchery	5
	Secure and safe			All	7
	Nourished			Palakkad, Maradu, Wadakkanchery	10
	Income generating work			All	11

9.2.2 Final set of codes for interview set 'B': Beneficiaries of the scheme

Cells in green indicate those themes and sub-themes that had been pre-decided based on the theoretical framework, conceptual framework, the research questions, and aims of the study (deductive) and cells in yellow indicate those themes, sub-themes, and codes that were inductively arrived at.

Themes	Sub-themes	Codes	Sub-codes	Municipalities	Total number of references
Primary assets	Natural assets	Farming		Alappuzha, Palakkad	5
		Water conservation		Alappuzha, Wadakkanchery	6
		Plantation works		Wadakkanchery	1
		Urban beautification		Alappuzha	2
	Physical assets	Public infrastructure	Sanitation works	All	8
			Road works	Alappuzha	1
			Water	Alappuzha, Wadakkanchery	6

			conservation		
		Private infrastructure for disadvantaged individuals	Housing	Alappuzha, Palakkad, Wadakkanchery	3
	Human assets			None	0
	Social assets			None	0
	Financial assets	Wages		Palakkad	1
		Other financial incentives		Palakkad	1
Instrumental Freedoms	Political freedoms			All	3
	Economic facilities			Alappuzha, Palakkad	5
	Protective security			None	0
	Social opportunity			All	3
	Transparency guarantee			Palakkad, Wadakkanchery	3
Institutions	Municipalities			All	3
	Other government programmes, schemes, departments			All	7
Barriers to the success of the scheme	Structural			Alappuzha	1
	Implementation			Alappuzha	2
Challenges experienced by beneficiaries				All	21

Recommendations to improve the scheme				All	9
Environmental issues in the municipality				All	3
Functionings	Sheltered			All	4
	Self-esteem			Alappuzha	1
	Secure and safe			Alappuzha	1
	Nourished			Wadakkanchery	1
	Income generating work			Alappuzha, Palakkad	2