International Institute of Social Studies

Can Co-Production lead to Empowerment?

Analysing the Jal Sathi Program's Impact on Urban Poor Women and Water Management

A Research Paper presented by:

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India

in partial fulfilment of the requirements for obtaining the degree of

MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:

Governance and Development Policy

GDP

Specialization:

Public Policy and Management

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December 2024

Disclaimer:

This document represents part of the author's study programme while at the International Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

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List of Acronyms

SHG	Self-Help Groups
ISS	Institute of Social Studies
MSG	Mission Shakti Group
AM	Assistant Manager
JS	Jalasathi
ULB	Urban Local Body
SLB	Street Level Bureaucrat

Acknowledgements

Abstract

The co-production of public service delivery, and the achievement of women empowerment are both notable policy goals in the development context. While each has been the subject of much independent study, there are few examples of programs that combine these goals. The Jal Sathi program in the state of Odisha, India is one notable example of such a program. This research paper investigates how co-production can empower urban poor women, and if involvement of these women in water management services leads to better performance. The paper also investigate the role of Street-Level Bureaucrats (SLBs) in facilitating this co-production.

This paper takes a qualitative approach to understanding the costs and benefits of the program for the involved actors. Through interviews, focus groups, and participant observations, data were gathered from Jal Sathi participants, Assistant Managers (SLBs), program leadership, and community members. Through this, I demonstrate that the Jal Sathi program is a promising model, able to deliver on both increased social and economic wellbeing for women, and improvements in operational efficiency for water services. I also conclude that these outcomes are contingent on SLB support and structural adjustments to improve equity among participants. This research contributes to understanding how co-production can foster empowerment within marginalized communities, providing insights for scaling similar models across other contexts.

Relevance to Development Studies

Community partnership models and co-production models are gaining traction in international development as a mechanism to improve overall quality of life. In India, poverty alleviation and women empowerment have been key focus areas for over 2 decades. The model for co-production which also achieve the objectives of poverty alleviation and empowerment is new and there are currently no studies which focus on this. As this model is gaining traction in India, it becomes important to study how such co-production models lead to empowerment and study factors that affect its success.

Keywords

Co-production, SHG, women empowerment, street level bureaucracy

Chapter 1 : Introduction

Self-Help Groups (SHGs) are a form of collectivisation for the poor, generally focusing on poor women. They have been mainstreamed in international development practice for decades as a means of community engagement, which solves the problem of high cost of coordination amongst the poor (Desai and Joshi, 2014, p. 492; Brady, 2017, p. 1). In India, through the coordination of NGOs, and with the support of the government, SHGs have been mainstreamed into the philosophy of poverty alleviation. SHGs are provided support to help women further their economic and social mobility (Desai and Olofsgård, 2019).

Under most programs in India, SHGs are formed by 10 -15 women who are organised through a community member or local government staff also known as community organiser. These women then meet regularly with the objective of saving and creating a small pool of money to act as common savings, and to support lending between members to build resilience (Desai and Olofsgård, 2019, p. 34). This pool of savings makes SHGs eligible for further loans from formal lending institutions. For many women, their SHG is the primary lender for both household credit, as well as working capital for entrepreneurial activities. SHGs are supported by governments through small grants for internal lending, subsidised interest rates, and guarantees to lenders working with these groups.

Apart from credit and savings, the SHG model has grown to have other objectives such as connecting non-SHG members to the financial sector, supporting public service delivery, and supporting outreach as well as encouraging community participation. They are also seen in the role of advocates for the community before the government (Brady, 2017).

SHGs are often claimed as effective routes to promote and lead local development for government initiatives which involve community participation such as effective route planning for solid waste services etc. Stakeholders assume that as SHGs are composed of women from the communities they wish to reach, they have the capacity to reach places where program staff cannot (Jakimow, 2007). As community driven development increases in popularity and uptake, the understanding of community needs, frontline view of outcomes make them invaluable at both the design and monitoring stages (Deininger and Liu, 2009).

SHG as last mile deliverer of public services is a rather new way of public service delivery. Whereas the state has traditionally provided basic needs and services, here it is an approach of building capacity. The current scholarship on role of SHGs in women's empowerment focusses on economic and financial empowerment of these women through

government interventions but currently very limited scholarship exists on the role of SHGs in the delivery of public services. (Deininger and Liu, 2009; Desai and Joshi, 2014; Nayak and Samanta, 2014; Raman, Denis and Benjamin, 2016; Brady, 2017). The closest someone has come to studying the role of SHGs in public service delivery is mapping the kinds of services being offered by the SHGs in Kerala (Brady, 2017).

Government of Odisha has started engaging with SHGs for providing access to public service delivery across various sectors such as solid waste management, water and sanitation services, and infrastructure development with the dual objective of increasing access to public services by means of co-production and women empowerment by providing paid employment to women who are a part of SHG.

This paper examines whether linking empowerment and poverty alleviation goals with improvements in public service delivery can achieve both objectives, or if it may lead to exploitative behaviour toward vulnerable groups, ineffective service delivery, or both. To study this, I have picked the case study of Jalasathi program of the government of Odisha which engages urban poor women as volunteers to support water supply and management. Chapter 3 gives a detailed outline of the program. While a prima facie review of the program showed various challenges indicating exploitation of women which will be detailed in chapter 3 it was seen that still over 800 women volunteered to become Jalasathis. Such challenges led me to wonder as to why the women are participating in the program. This became the foundation for this research paper where I decided to study co-production as a way for empowerment and how it is beneficial to both the parties involved.

Research Questions

Question: How does the Jalasathi program benefit urban poor women in Odisha as well as the local government, and what is the role of SLB in facilitating this co-production of water services?

Sub-question 1: How and why do urban poor women participate in the Jalasathi program?

Sub-question 2: How does the state government of Odisha benefit from involving urban poor women in such co-production?

Sub-question 3: How do Street Level Bureaucrats use their discretion and what are the effects of doing so on the co-production of water services and women's empowerment?

This research paper is organised in a linear narrative. Chapter 2 discusses the conceptual framework used to answer the research question. Chapter 3 explains the Jalasathi program along with its objectives, its governance structure, criteria for selection of Jalasathi, and the preliminary challenges identified in the program which lead to the formation of research questions and which became the basis for this research paper. Chapter 4 discusses the research methodology while chapter 5 & 6 answer the research question. Chapter 7 concludes the RP with theoretical contributions and addresses the limitations of this research paper.

Chapter 2 : Bringing street level bureaucrats, co-production and women empowerment together

In this chapter, we will discuss the concepts of institutionalised co-production, women empowerment and street level bureaucracy to understand how together the three concepts provide a lens to understand the Jalasathi program. The chapter will begin with review of institutionalised co-production for public service delivery, following with review of street level bureaucracy and how SLBs discretion plays a role in implementation of policies and its effects on outputs. Finally, the concept of women empowerment will be discussed. The framework in figure 1, will help us understand the role of street level beurocrats in achievement of objectives of co-production. In case of Jalasathi program, the dual objectives of efficient public service delivery and women empowerment.

Figure 1: conceptual framework to analyze the findings
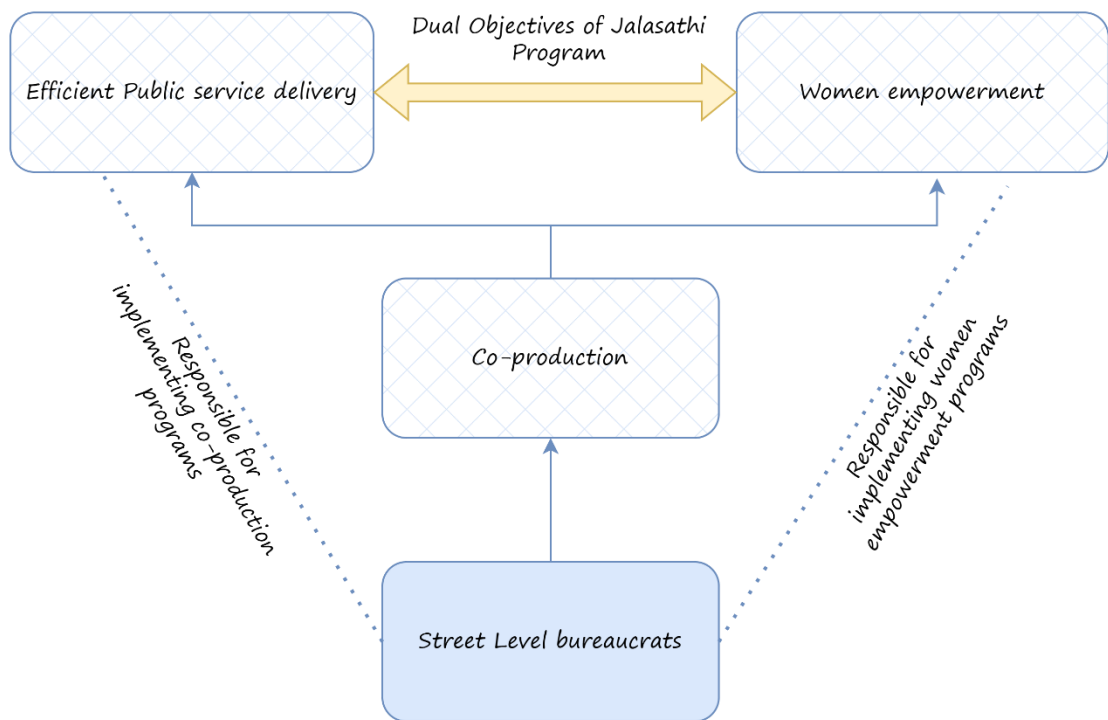
Source: Prepared by the author

2.1. Institutionalised Co-Production for public services

Institutionalized co-production is described as provision public services through "*regular long-term relationship between state agencies and organised groups of citizens, whereboth make substantial resource contributions.*" (Joshi and Moore, 2004, p. 31).

Although it is generally understood that state control over public services exclusively is not ideal or practical, there is an ongoing debate on what is the most effective alternative to this (Joshi and Moore, 2004). The alternative arrangements have been created to plug the holes in deficiencies within existing delivery systems.

Co-production for public service delivery in literature has focussed on the role of citizens in bridging the gap between government and citizens and their involvement in delivery of such services(Voorberg, Bekkers and Tummers, 2015, p. 1340). Co-production as a concept has also been considered a virtue/merit in itself and there has been no need to legitimise its existence by looking at whether the objectives of the co-production have been met. Similarly, at the end of citizens, the literature has focused on sense of ownership, trust and social capital and stakes in the service as a primary driving force for opting for co-production (Voorberg, Bekkers and Tummers, 2015, p. 1343). It appears that Co-production has been used by the government in various sectors such as water management, education, and health. An example comes from community-based water monitoring and management program in rural India which led to better resource conservation, timely identification of issues (Nayak and Samanta, 2014). In the education sector, case studies show that active participation of communities in schools have led to positive outcomes such as reduction in rate of teacher absence (Banerjee et al., 2010).

The case studies show co-production improves service delivery. There are also examples of empowerment of vulnerable communities (Mishra and Mishra, 2012). However, most studies are limited to describing the set-up and participatory planning but not how local communities are actually providing such services.

Internationally, co-production has been used as an important tool for increasing participatory planning and delivery with the objective of increasing efficiency and trust. For example, UK government started sure start as a scheme with the focus on improving health outcomes in disadvantaged areas by training the parents on childcare and on issues such as breastfeeding. The parents then visit the community and have created support groups for new mothers (Bovaird, 2007, p. 852). Across all literature, whether we discuss co-production in design or implementation, the key factor that plays a role is the citizen involvement and

the types of citizens. Be it individual or groups or CBOs, the co-production is in their interest or for their benefit or is improving their quality of life (Bovaird, 2007; Jakobsen and Andersen, 2013; Van Eijk and Steen, 2016). In the case of Jalasathis, the women are only from the urban poor community who may or may not have vested interest in the public service. Currently, there are no studies that focus on a particular group of citizens which participates in co-production where they might not be getting direct benefit for the co-production of services.

Institutionalized co-production for this research paper provides a great entry point to understand how SHGs co-produce public services with the institutions based on the case study.

In the context of the Jal Sathi program, co-production is evident. The program seeks participation from the urban poor women who are a part of Mission Shakti groups in managing and monitoring the urban water supply. Jalasathis, as community partners perform various activities such as taking water meter readings, giving water bills and collecting user charges, and testing water quality.

By integrating these women into the service delivery process, Jalasathi program aims to use the knowledge of these women and their familiarity within community. The aim is also to create a sense of ownership and accountability. This community partnership model serves two purposes: one, improvement of public services and two, women empowerment.

For example, Jal Sathis conduct door-to-door surveys and interact directly with households to ensure accurate billing and quick resolution of complaints by customer. Their role bridges the gap between the water authorities and the consumers, making the water management system more responsive and effective – at least in theory.

2.2. Street Level Bureaucracy

'Street Level Bureaucracy' (SLB) refers to the study of behaviour and decision-making processes among public administrators who operate at the frontline, often face-to-face with stakeholders, while retaining some managerial or bureaucratic authority. These individuals are often in positions such as social workers, law-enforcement, publicly employed teachers, or healthcare workers, and they serve as the primary link between citizens and the government. Theories and empirical studies of SLB have been considerably influenced by the work of Michael Lipsky, particularly following his seminal work published in 1980 (Lipsky, 1980). His research brought significant attention to the challenges and complexities

that these frontline workers face in carrying out their duties and has inspired many subsequent studies in the field.

SLB focuses on the real-world, day-to-day decision-making that occurs at the frontlines of public service. In these contexts, conditions are unpredictable, and strict adherence to predetermined rules is not always practical. Frontline bureaucrats must balance the need for flexibility and responsiveness with the necessity of meeting the varied and complex needs of individuals(Lipsky, 1980) .

Upper management and political leadership cannot create 'complete' policy documents and must rely on SLBs to achieve policy goals. Maynard-Moody and Musheno (2000) emphasized that, in such settings, bureaucrats need to exercise discretion and must make judgment calls that can impact the quality and fairness of the services provided.

The concept of SLB allows for an examination of discretion, power, justice, autonomy, and influence in its operational context (Tummers and Bekkers, 2014). These elements are crucial in understanding how public policies are implemented on the ground, as opposed to how they are conceived by policymakers. The degree of discretion given to street-level bureaucrats can lead to variation in policy outcomes, as the choices made by these individuals can differ widely depending on context, available resources, and their own professional judgment (Hupe, 2019). Thus, SLB theory has become an essential tool for exploring the real effects of administrative practices on service delivery and how individual discretion shapes public experiences.

This approach stands in contrast to Max Weber's theory of rational-legal bureaucracy, which emphasizes a systematic structure characterized by clearly defined rules, the elimination of discretion, consistency, predictability, and impartiality (Weber, Roth and Wittich, 1978). In Weber's view, bureaucracy should be characterized by strict adherence to rules, which ensures fairness and uniformity in decision-making. However, SLB theory challenges this notion by highlighting the myriad ways in which policy ambiguity is inevitable, and how it is resolved in practice through the actions and decision making of SLBs.

Recent work such as Chang and Brewer (2023); and Peeters and Campos (2023); study the current state of scholarship around SLB. They show that while issues of discretion are an important area for research, study is generally focused on domains such as education and welfare. They also show that cases exploring SLB are concentrated in North America and Europe, while the global south remains broadly understudied. The literature particularly highlights that discretion in SLB may be constructed as both a positive or a negative

contributor to public policy outcomes (Bohte and Meier, 2000; Hupe and Hill, 2007). As Lotta and Pires (2019) put it, there is an inherent risk of the reproduction of social inequalities in the interactions that make up policy implementation – even when a policy is designed to alleviate these inequalities. Since the actions of SLBs give form to policy, these actions may mitigate the consequences of inequity (positive effects) or exacerbate them (negative effects). Understanding the role of bureaucratic discretion in diverse domains is a necessary precondition to discussions of controlling it.

SLBs also play a crucial role in co-production by using their discretion while directly interacting with citizens, which shapes service delivery outcomes (Eriksson and Andersson, 2024). Their direct engagement with co-production users allows them to adapt services to meet local needs which leads to collaboration which supports citizens to contribute more effectively to public service (Faria Zimmer Santos and Chies Schommer, 2023). The dynamic interaction between SLB and citizens supporting co-production builds a foundation for continuous participation which highlights the importance of SLB and their impact on the effectiveness of co-produced services (Gassner and Gofen, 2019).

In the case of Jalasathi - Assistant Manager interactions, we observe both types of interaction manifest. Thus, the theory of SLB may provide a framework within which one may understand these outcomes.

2.4. Women empowerment

The study of women's empowerment encompasses the dimensions of power control in the lives of women – particularly in the context of intersectional and multi-dimensional vulnerabilities of women living in poverty or with other social risks. According to Mokta (2014, p. 473), empowerment can be explained as developing women to make the politically active, economically productive, and independent, enabling them to make informed decisions about their lives. They see empowerment as both the process and the result of challenging existing power relations and gaining greater control over resources ((Batliwala, 1993; Mokta, 2014). The United Nations Development Fund for Women (UNIFEW) defines empowerment as something where women can understand gender relations and how such gender relations can be changed to enure women are in control of their own life (Mokta, 2014). Research in the field of women's empowerment has seen significant development over the past two decades. Kabeer's framework focuses on resources, agency, and achievements. Resources in terms of women empowerment can be understood to mean

access to not only material resources but also 'allocative and authoritative resources' which means a women's ability to control resources (Kabeer, 1999, p. 437). Agency can be understood to mean ability of women to make decisions, bargain, negotiate, and to pursue their own desires (Kabeer, 1999). Achievements can be understood to mean resources and agency together to 'achieve' their goals (Kabeer, 1999). This has laid a foundation for understanding empowerment in various socio-cultural settings (Priya, Venkatesh and Shukla, 2021). Other scholars have expanded on Kabeer's work to explore diverse dimensions such as economic empowerment, political participation, and social status (Sheilds, 1995; Jayaweera, 1997; Rahul S Mohile and Dr Jaya Manglani, 2024). Women economic empowerment in simple terms can be defined as process by which women increase their access to economic resources which enables them to increase their agency and decision making power (Gupta and Roy, 2023). Political empowerment can be understood as women's ability to mobilize and organise to lead change. Social and psychological empowerment can be understood as ability of women to work to improve their social realities for themselves and for the society (Mokta, 2014, p. 475).

Shields emphasizes that 'empowerment' is influenced by culture, social and economic factors – making it an evolving process rather than a static slate (Sheilds, 1995). Mokta similarly emphasizes the importance of shifts in power structures, and the challenge to traditional norms which limit women's opportunities (Mokta, 2014).

Women's empowerment has been recognized as a critical component of the global development agendas. The adoption of the Sustainable Development Goals (SDGs) of the UN shows adoption of this trend. Goal 5 of the SDGs explicitly seeks to achieve gender equality and empower all women and girls ((Khursheed, Khan and Mustafa, 2021). World Bank has highlighted women's empowerment as a critical pathway to ensure economic growth and poverty reduction and has integrated gender equality into their strategic plans to achieve this (Priya, Venkatesh and Shukla, 2021).

The alignment between development goals and gender empowerments can be seen across diverse cultural and political contexts. However, the effectiveness of initiatives targeted at reducing the gender gap are often hindered by ingrained social norms and gender disparities (Sahrakorpi and Bandi, 2021). In India, most of the women empowerment and poverty alleviation programs are targeted at SHGs and they have emerged as a pivotal strategy for empowering women as discussed in chapter 1.

Through my research, I will study the co-production model visible in the Jalasathi program to see how SLB discretion affects co-production outcomes especially two diverse outcomes i.e. efficient public service delivery for government and women empowerment for urban poor women.

Chapter 3 : Odisha – The SHG Partnership Model

3.1. SHGs in Odisha

According to the 2011 census, women make up 49.5% of Odisha's total population, with 33% of the population living below the poverty line. Odisha ranks as the sixth poorest state in India (Reserve Bank of India, 2013).

In 2001, the Government of Odisha launched the "Mission Shakti" program with the goal of eliminating poverty and focussing on socio-economic development. Mission Shakti program focuses on the holistic empowerment of women by strengthening Women Self-Help Groups (WSHGs). This initiative was started with the belief that economic independence plays a critical role in broader social empowerment. By enabling women to secure independent employment and income, the program aims to uplift communities and reduce poverty across the state (Department of Mission Shakti, Government of Odisha)

Mission Shakti encourages the formation of SHGs, which provide a platform for women to engage in various socio-economic activities. The program facilitates access to credit and market linkages and supports women in pursing livelihoods which are sustainable with the aim that they will eventually move out of poverty. Mission Shakti in Odisha is a significant force. The program has mobilised around seven million women into approximately six hundred thousand self-help groups within Odisha. These groups are present both in rural and urban areas and are seen to be contributing to a movement toward women's economic empowerment (Department of Mission Shakti, Government of Odisha).

To ensure the effectiveness of SHGs, the mission shakti program provides continuous support by providing continuous handholding through mission managers and also promotes regular monitoring. Directorate of Mission Shakti was established under the Department of Women & Child Development support and manage these efforts. The state through the mission shakti program focuses on institutionalizing SHGs at various administrative levels and building capacity. By linking SHGs to formal financial institutions, Mission Shakti promotes financial inclusion through seed money, revolving funds, credit facilitation, as well as financial literacy programs.

Beyond economic empowerment, Mission Shakti also plays a crucial role in advocating for policies that address social issues such as gender discrimination. Mission shakti also supports creation of platforms for women where they can voice their concerns. Mission

shakti program claims to have a comprehensive approach which is enabling transformation in Odisha by empowering over 7 million women by encouraging social change across the state (Government of Odisha, 2024).

The role of SHGs in Urban Odisha has evolved over the years and now the government is partnering with SHGs to enable last mile access to public services. The government has supposedly pioneered a unique approach to governance that emphasizes the inclusion of vulnerable communities. A key component of this approach is the engagement of community-based organizations (CBOs) and Self-Help Groups (SHGs) in public service delivery. This model claims to improve access to essential services but also to empower local communities, particularly women, to take on leadership roles in urban service management. The next section briefly introduces two examples of how Odisha is partnering with SHGs in public service delivery or co-production, namely in the area of solid waste management and the MUKTA programme. However, for my research, I will deep-dive into Odisha's Jalasathi program which focusses on water supply and management, which I will discuss in detail in the subsequent sections.

3.2. Odisha Government's Engagement with SHGs

1. Solid Waste Management

The Odisha government now focusses on decentralized solid waste management strategy that leverages SHGs to manage waste segregation, collection, and processing. Through the establishment of waste centres such as Micro Composting Centres (MCCs) for wet waste and Material Recovery Facilities (MRFs) for dry waste, SHGs play a pivotal role in overseeing these operations. The objective is to ensure efficient and sustainable waste management practices at the grassroots level (Urban Management Centre, 2022).

Women SHGs, known as Swachh Saathis, have also been involved in managing the collection of user fees for solid waste management while conducting door-to-door outreach to spread sanitation awareness. The objective is to create employment opportunities for women but also contribute to enhanced public health outcomes through improved hygiene practices in urban areas (Department of Housing & Urban Development, Government of Odisha, 2021)

2. MUKTA Programme

The Mukhya Mantri Karma Tatpara Abhiyan (MUKTA) program was developed from the Urban Wage Employment Initiative (UWEI) and it focuses on creating community assets

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and infrastructure while generating employment opportunities. Through this initiative, SHGs are responsible for identifying community needs and overseeing the implementation of projects, including the development of parks, vending zones, and water body rejuvenation. (Centre for Policy Research, 2022).

3.3. Jalasathi Program

The Jalasathi Program was launched by the Government of Odisha in urban Odisha in 2019 with the objective of achieving universal coverage with 100% piped water connection to all households. The program believes that local community participation in water supply management essential for achieving its objective (Government of Odisha, 2021).

3.3.1. Program objectives

The objective of the Jal Sathi program is to achieve universal piped water coverage, ensure billing and collection of user charges, and improve water quality. Additionally, the unwritten objectives of the program can be interpreted to empower urban poor women by providing them with employment opportunities (Government of Odisha, 2021). The program's specific goals include:

- **Universal Coverage:** Ensuring all households have access to piped water connections.
- **Public Awareness:** leading awareness campaigns in the community on the importance of safe water and discouraging the use of private borewells.
- **Database Management:** Supporting the government to integrate all water connections into their database.
- **Billing Reassessment:** updating billing information based on actual water usage.
- **Digital Payments:** Facilitating digital payment for user charges.
- **Water Quality Assurance:** Conducting regular water quality tests at the household level (Government of Odisha, 2021) .

3.3.2. Overview of the Program's Governance Structure

Figure 1 below explains the governance structure for the Jalasathi program. The program is a state level program which is being implemented by WATCO (Water Corporation of Odisha) and PHEO (Public Health Engineering Organisation) together with

support from external consultants who are being given the designation of PMU (Project Management Unit), and Technical Support Unit, Capacity Building (TSU, CB).

SUJOG is the state government's e-governance portal. The objective is to be a single window online portal where citizens can visit for services such as building permissions, property tax, water and sewage etc.

At community level, Jalasathis are implementing the policy objectives at the last mile.
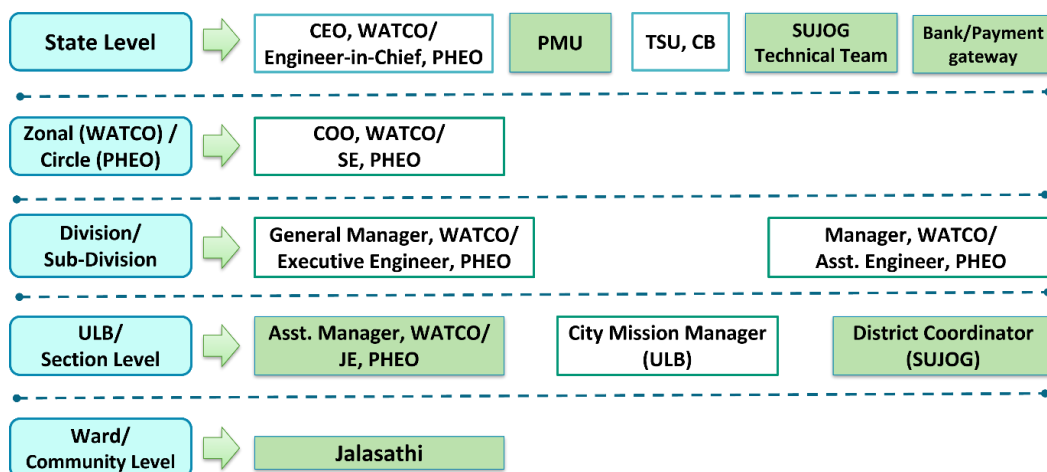
Figure 2: Author's construction of the governance structure based on the standard operating procedure and personal communication with the TSU team.

3.3.3. Who are the Jalasathis?

Jalasathis are urban poor women who are a part of a Mission Shakti Group (type of SHGs) who come together to improve their living conditions through group savings or loans. Under the program, these women act as intermediaries between the community and PHEO/WATCO (Government of Odisha, 2021).

Their responsibilities include facilitating rapport building of WATCO/PHEO with the citizens to fill in the communication gap. It also includes distributing water bills and collecting user charges, conducting door-to-door surveys to ensure everyone has water connection, facilitate new connections and remove/regularise illegal connections, perform water quality tests, support the consumers to address their grievances and spread awareness about water conservation (Government of Odisha, 2021).

This is considered to be voluntary service by the Jalasathis, and they receive the following incentives:

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- Rs.100 or €3.20 [1] (As per purchasing power parity (PPP) calculations of the world bank) per new domestic connection and Rs. 200 or € 6.40 for commercial water connection.

- 5% of the monthly user charges collected.

- 50% of the increase in user charges (difference between old and new bill)

- Rs. 20 or 0.64 euros for conducting water quality tests (Government of Odisha, 2021).

The incentives are based on the condition that the minimum number of houses visited should not be less than 200 per month and a minimum of 20 tests per month are carried out.

3.3.4. Understanding the MSG landscape

Mission shakti groups are now consolidated at three levels to create a federation to women who work together and safeguard their interests. A lot of government – SHG partnerships arise from the local government reaching out to city level federations which then further circulate them within themselves, and women volunteer to become partners with local government for their initiatives such as becoming a Jalasathi.

Mission Shakti Groups are a group of 10-15 urban poor women who come together to improve their conditions through savings and loan. An ALF is an association of Mission Shakti Groups where from each MSG in an area – representative for ALF is selected with the objective of supporting member MSGs. It involves guiding and monitoring the functioning of MSGs, forming and training new MSGs. They are required to be registered as society/ an institution. City Level Federation (CLF) is an organisation, which is formed by the ALFs by coming together to represent their needs (Government of Odisha, 2021).

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[1] As per World Bank Data as of May 20, 2024, PPP conversion factor shows INR to US dollar is 22.8 and Netherlands to US dollar is 0.73.

Therefore, INR to Euro = 22.8/0.73

Therefore, Rs.100 to Euros as per purchasing power parity is (100*0.73) / 22.8 = 3.2 euros
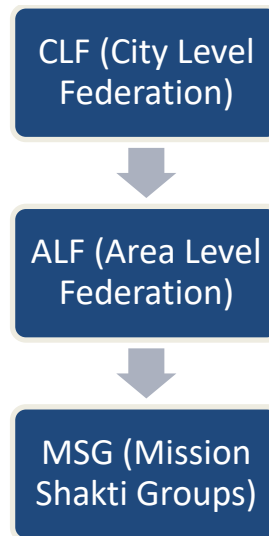
Figure 3: Levels of SHG federation.

3.3.5. Recruitment of Jalasathis

According to the standard operating procedure (Government of Odisha, 2021) for implementation of Jalasathi program, the Jalasathis are recruited based on a set criteria as per the standard operating procedure. The criteria for recruitment include that the MSG should be atleast two-year-old and both MSG and MSG members should have active bank accounts. The members should also be regularly saving for the past 2 years and should be maintaining systematic books for loans and internal savings. One of the important criteria for individual MSG member is that they should be between the ages of 18-25 and have passed 10th grade. They should also be in possession of their own smart phone.

WATCO and PHEO, with support of State Urban Development Agency (SUDA), informally float the vacancy through CLF and ALFs. Once the MSG members are shortlisted by ALF, they are interviewed by the Local government and hired.

Once selected, the Jalasathi signs an MoU between WATCO/PHEO, ULB and Jalasathis. They are also required to deposit Rs. 10,000 as a security deposit against the mPOS machine which is used to generate bills.

3.3.6. Preliminary challenges identified

While conducting preliminary research, which included discussions with the NGO providing technical support to the Government of Odisha, and in-depth study of the standard operating procedure for implementation of the program, the following challenges were identified, which were used to formulate the research sub-questions and develop the fieldwork data collection tools. The research questions are mentioned in chapter 1.

As mentioned earlier, the Jalasathi, at the time of signing the MoU, is required to give Rs. 10,000 or 320 euros as a security deposit against the mPOS machine. The program guidelines clearly state that Jalasathi volunteers shall be women from urban poor background. Being an urban poor woman, it is very difficult to have such liquidity where you can put such a high amount as a security deposit. If the program is only recruiting urban poor women as volunteers who are paid based on incentives explained above, then asking these women to deposit such as high amount seems to create a high barrier for participation by such vulnerable women. This might be leading to exclusion of the most vulnerable women who cannot access such liquidity and therefore can't access the potential employment opportunity.

Also, based on a preliminary discussion with the NGO working as a implementation partner for the program, it seems that on average Jalasathis are earning between Rs. 3000 (96 euros as per PPP) -Rs 5000 (160 euros as per PPP) a month which is below the minimum wage. Since it is a volunteer position, the concept of minimum wage doesn't apply. The earnings of the Jalasathi program have also been referred to as "incentives" instead or wage/salary/stipend. So at first glance, it seems the program is exploiting the urban poor women in an attempt to cut down costs and increase state revenue.

It is also interesting to note that the idea of the program is community partnership in urban water supply management in Odisha but the only people who are being asked to "volunteer" are urban poor women. As per the SOP, the program targets entire urban area and people from all backgrounds. The program builds on community partnership but as per the SOP, the volunteers should be "urban poor women" from MSGs. For a community partnership program people from all backgrounds should be included. The term "community" is not homogenous and by using the term "community", it seems the program is saddling the already vulnerable population with the responsibility of public service delivery.

It was also noticed that the Assistant Manager (the Street Level Bureaucrat) for the program has complete discretion on which Jalasathi gets which area under the program. The preliminary research shows that based on the area, the income of the Jalasathi varies significantly. If a Jalasathi is allotted an industrial area, their earnings increase significantly compared to the Jalasathis who have been given an area in the slums. The SLB seems to have huge discretion with limited to no guidelines on how to use the discretion. This is presumably leading to huge inequalities within the Jalasathis.

The above identified challenges led me to wonder as to why the women are participating in the program. This became the foundation for this research paper where I decided to study co-production as a way for empowerment and how it is beneficial to both the parties involved.

3.3.7. Chapter summary

This chapter discussed the overview of the Jalasathi program by highlighting the program objectives, governance structure, recruitment of Jalasathis and the incentive model for Jalasathi. The program partners with urban poor women to enable access to water supply and management services with the citizens and increase the reach of WATCO/PHEO. Jalasathis, as community partners perform various activities such as taking water meter readings, giving water bills and collecting user charges, and testing water quality. By integrating these women into the service delivery process, Jalasathi program aims to use the knowledge of these women and their familiarity within community. The aim is also to create a sense of ownership and accountability. This co-production model serves two purposes: one, improvement of public services and two, women empowerment. It is also important that assistant managers (SLB) are responsible for implementation of this peculiar co-production model which partners exclusively with urban poor women on ground and meet the dual objective.

In this research we are trying to understand how does the Jalasathi program achieve its state objectives, and what are the factors which are limiting its success. This is relevant to study since this program is now being scaled up nationally.

In the coming chapter, we will discuss the research methodology used to understand this co-production model. Chapter 5 will answer sub-question one which focusses on how and why are the urban poor women participating in the program and what are the benefits for the government by adopting this co-production model. In chapter 6, we will discuss the role of SLB (assistant manager) in executing this co-production model and how their discretion affects policy outcomes of this program.

Chapter 4 Research Methodology

The objective of the study is to understand how the Jalasathi program benefits urban poor women in Odisha as well as the local government, and the role of SLB in facilitating this co-production of water services and its implications on women empowerment. In order to meet such objectives, qualitative methodology was used.

The qualitative methodology involved qualitative interviewing, conducting focus group discussions, participant observations along with review of published and unpublished project documents.

The following types of respondents were selected for qualitative data collection:

1. Jalasathis who have been in the program for over a year (split between well performing Jalsathis and Jalasathis who are not performing well(criteria for well-performing Jalasathis and non-performing Jalasathis explained in section 4.1.)).

2. Assistant Managers from section offices where Jalasathis are working (Street Level Bureaucrats).

3. People from households whom the Jalasathis visit.

4. Street level bureaucrats who are responsible for day-to-day implementation of program

5. Ex- Principal Secretary , Housing and Urban Development Department, Government of Odisha - responsible for design and implementation of Jalasathi program.

6. Engineer-in-chief, Public Health and Engineering Office (EIC, PHEO)

7. General Manager, WATCO

The participants were identified using purposive sampling based on their involvement in the program (Hennink, Hutter and Bailey, 2019, p. 104). The interviews and focus group discussions were conducted in-person in Odisha where prior oral consent was obtained by each Jalasathi, assistant manager, and customers. The consent also included using the pictures for academic purposes. For interviewing state officials, prior written consent of the Special Secretary and State Mission Director, Government of Odisha was obtained. The format for verbal consent is attached as **Appendix 1.** The verbal consent format has been adapted from lecture slides from session 3 of ISS 3207 Qualitative interviewing 23-24 (Arul Chuib and Ahmed El Assal, 2024; Rishika Srivastava, 2024, p. 4).

The interviews were conducted in Hindi and Odia, Hindi being the native language of the researcher whereas Odia being the local language. The interviews with Jalasathis were conducted with support from a local NGO which provided support for translation and identification of Jalasathis. Interviews with the officials happened in Hindi and English. A translator and a transcriber was hired to support the transcribing process. Atlas ti 24 was used to code the transcripts and analyse the overlap of various codes to generate meaningful analysis and insights. The researcher used open code and axial codes to analyse the transcripts manually (Rishika Srivastava, 2024, p. 4).

4.1. Demographics of participants

The criteria for deciding income range for well-performing jalasathis and non-performing jalasathis was based on minimum wage as defined by state of Odisha. As per government of Odisha, the minimum wage for unskilled worker is Rs.450 per day or €14 per day as per purchasing power parity which brings monthly income to Rs. 10,725 or €343 as per purchasing power parity assuming a person works 44 hours per week without any leaves or holidays (Labour & ESI Department, Odisha, 2024). Based on this calculation, the range for well-performing income was set to Rs.8000(€343) – Rs. 35,000 (€1121) as per purchasing power parity.

Table 1: Demographic of participants

Participant category	Age	No of participants	Gender	Involvement in program	Income range
Well-performing Jalasathis	22-45	12 Jalasathis	Female	1-5 years	8,000 – 35,000 (€343 - €1121 as per purchasing power parity)
Non-performing Jalasathis	22-45	9 Jalasathis	Female	1-5 years	Less than 8000 (€343 as per purchasing power parity

Principal Secretary	55	1	Male	Since inception	NA
WATCO General Manager	50+	1	Male	Since inception	NA
EIC, PHEO	50+	1	Male	Since inception	NA
Assistant Managers	40-55	7	Male	Since inception	NA

A full list of anonymised Jalasathis and assistant managers is added in **Appendix 3**.

4.2. Codes used to analyse transcripts

Economic benefits to Jalasathi	
Sense of identity	
Professional identity	
Recognition	
Flexibility of time	Benefits to Jalasathis
Other benefit	
Confidence	
Social Capital	
Revenue increase	
Grievance redressal increased	Benefits to Government
Household coverage increased	
Efficient Coordination between AM and JS	Coordination between AM and JS
Inefficient coordination between AM & JS	
Allotment of area criteria	Allotment of Area
Satisfied with allotment	
Not satisfied with allotment	

Support from AM – Good	Support from AM
Support from AM – Bad	
Performance of JS – Good	Peformance of JS
Performance of JS – Bad	
Consumer relationship – Good	Consumer relationship
Consumer relationship – Bad	
Satisfied with JS	Working with JS
Not satisfied with JS	
Responsiveness of AM	
Monitoring performance of JS	Monitoring and grievance
Monitoring performance AM	
Grievance redressal – Consumer	
Grievance redressal - JS	

4.3. Positionality and Research Ethics

In India, for the past four years, I have been working for a national NGO based in India who provides technical assistance to the Jalasathi program. For this research paper, I reached out to them to support meeting with the SHG women working as Jalasathis and to provide data related to the overall performance of the Jalasathis. In return, I promised to support the NGO in drafting guidelines for improvement of the program based on my findings.

Since the program is being implemented in Odisha, which is in the East of India, and I am from North of India, there is a severe language barrier in talking to communities on ground. The team in the field supported with live translation. I have also hired a research assistant who transcribed and translated the interviews. The research assistant was an person that the NGO has previously used to translate knowledge material from English to Odia. I had a separate conversation with them where I explained my assignment and shared my recordings with him to translate and transcribe. A clear oral agreement with respect to confidentially was a also discussed and agreed upon. The person took 2 weeks to finish transcription and translation. I went through the transcripts along with the recordings to check the accuracy of the transcript received.

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To mitigate biases from the NGO, I spent 10 days in the head office prior to the field visit to review data available for the performance of Jalasathis and selected Jalasathis to interview myself. I created a shortlist of Jalasathis to have discussions and back up options. It was very useful as I was able to get a clear sense of what works for certain Jalasathis and points of failure.

I believe I hold multiple positions, namely one as a research student of ISS, as well as an employee/consultant of the NGO. Thirdly, I am also a person from the North of India who belongs to a middle-income household and is from upper caste who doesn't understand the language in Odisha.

I believe, while interacting with the women, there is a high chance that in the minds of these women that I will be seen as part of the NGO, which might have affected how they share their experience under the program. For this, I used my identity as a student to establish that I am not part of the NGO, but an independent researcher. I reiterated at various stages that I am neither from the NGO nor the government but a researcher who is working on identifying points of failure and improving the program.

While interacting with bureaucrats, I used my association with the NGO to get an interview but during the interview, I focussed more on my identity as a student from an international university. It helped me engage with the bureaucrat on a level which goes beyond the day-to-day operations of the project but to understand what they understand by community participation and what they think about the efficiency of service delivery by involving these women.

The research included collection and or processing of (primary or secondary) personal data. For my results, I anonymised the participants. For the processing of data related to performance of SHGs as Jalasathis, I accessed that data in the head office of the NGO and the data was later copied on my laptop with explicit permission from the director of the NGO. I have consent to analyse the data and use the analysis for my research paper and publication. For my interviewees, I mostly used verbal consent as getting a signed consent from urban poor women or from government officials fully changes the dynamics which affects the interactions. ISS ethics procedures as per the RP guidelines was followed and the ethics form was approved by the supervisor.

Chapter 5 Co-production leads to empowerment

This chapter discusses the main finding for sub-questions 1 & 2 which discuss the questions of How and why women are participating in the Jalasathi program and what are the benefits of the program for the urban poor women and state government. It also integrates the findings with the conceptual frameworks identified in chapter 2. Section 5.1 answers sub-question 1 and section 5.2 answers sub-question 2.

5.1. Participation by urban poor women in the Jalasathi program

Chapter 3 discusses various challenges which come up when we read the documents related to the program and study the data. The challenges identified show a grim picture of the program. It gives prima facie evidence that the program is exploiting urban poor women for reducing the costs to the state government for providing access to water. Still, there are over 800 urban poor women across Odisha participating in the program. To further understand why these women are participating in the program, it was important to talk to Jalasathis themselves. By talking to well-performing Jalasathis and non-performing Jalasathis, I tried to answer how and why these women are participating in the program.

Chapter 3.3. discusses the role and responsibilities of Jalasathis as per the standard operating procedure published by the Government of Odisha. In this section, I will be explaining how Jalasathis work in practice and identify the factors that can explain why some Jalsathis perform well and others do not to answer sub-question 1 about how and why urban poor women participate in the Jalasathi program.

5.1.1 Explaining the differences between well- and badly performing Jalasathis and how they participate in the program

Check-ins with Assistant Managers

There are currently no written guidelines or formal documentation outlining how a Jalasathi should perform their duties. Similarly, there are no established guidelines detailing how assistant managers are expected to support Jalasathis and consumers in fulfilling their roles. The training provided to Jalasathis is ad-hoc, and the program continues to evolve with the assistance of a non-governmental organization (NGO) providing technical support to the state government.

In practice, based on discussions with both Jalasathis and assistant managers, it appears that each section office has developed its own informal mechanisms to support the program. Some section offices hold weekly meetings with Jalasathis to monitor progress, while others rely on daily communication through WhatsApp.

It was also noted that assistant managers working with high-performing Jalasathis were highly responsive to their needs and provided regular support. Conversely, in sections where Jalasathis were underperforming, the level of responsiveness from assistant managers was also found to be lower.

For example, a Jalsathi who earned Rs.14000 and was thus a high-performer told me, *"Whenever we have a problem with the customer, we put it on whatsapp group. There is someone in the section office who checks and immediately respond. Initially when the consumers did not know us and were rude with us, the assistant manager organised community meeting to introduce us and asked customers to be polite" – WJS2B*

Whereas, a Jalsathi who earned Rs. 3500 and was thus a non-performer told me,

" When we complained about the area being mostly slum where people did not pay or respond to us, the assistant manager told me that its my luck that I got allotted this area versus someone else got allotted a different area." – NJS4B

While the role of assistant managers in the success or failure of the Jalasathi program will be discussed in detail in Chapter 5, it is important to highlight here that they are crucial to the program's successful implementation. In cases where Jalasathis are underperforming, it has often been observed that the assistant managers responsible are not providing the necessary support to help set up the Jalasathis in their designated areas. This lack of accountability at the assistant manager level has led to situations where the section office fails to assist Jalasathis in effectively targeting and engaging with customers.

When communication between the assistant manager and the Jalasathi breaks down, the Jalasathis often feel unsupported, which leads to a lack of motivation to work beyond the minimum required. This disengagement not only affects the Jalasathis' performance but also weakens their relationships with consumers, ultimately undermining the goals of the program. Ensuring accountability and open communication at the assistant manager level is essential for maintaining the morale and effectiveness of Jalasathis.

A jalasathi who earns rs. 4500 and is thus a non performing Jalasathi shared that

"We asked Assistant Manager to come to the community with us to introduce us and conduct a meeting with slum leaders so that they corporate with us. He refused to come." – NJS2B

From Jalasathi's perspective, the reason for non-performance is last of support from the assistant manager in liasoning with citizens and inequitable distribution of households without any mechanism for grievance redressal.

One the other hand, from assistant managers perspective, the reason for non-performance of Jalasathis and low household coverage is the lack of intrinsic motivation to work and engage with the assistant managers.

"These women don't really want to work. They find reasons for not working. We can't even fire them. They are just holding onto a spot without doing anything." – AM5C

"When I call them to ask how it is going, they don't even pick up. Sometimes they come to office for something but they don't even come and meet me. We have official meetings once a month. They don't even show up" – AM4C

This variation in support and communication practices across different sections highlights the absence of a standardized approach and the critical role that assistant managers play in the success or failure of the Jalasathis under their supervision.

Maintenance of records

Since there is no prescribed format or structure to visit households in their allotted area, the well-performing Jalasathis have come up with their own mechanisms to track households.

Figure 5: Example of data management   **Figure 4: Example of data management**

Source: Author while discussing with Jalasathis

The above picture shows are the examples of how Jalasathis are tracking their customers. They have developed mechanisms like using 'x' & 'tick' to track paying customers. They also

have allotted different households different dates which they use to track 100% coverage. They have a list of households they need to cover in a month. They divide the houses across different days and then track the households based on their list and ensure at the end of month, all houses are covered. The Jalasathis have also taken whatsapp numbers of their customers and they sometimes share their invoices over whatsapp and take payment online as well. They also track days and time of the day where their consumers are available at their homes and based on their schedule, they also adjust their timings. These are some of the examples by which the Jalasathis have adapted their role to become more efficient.

For non-performing Jalasathis, these additional mechanisms such as maintaining records was not observed and they were working ad-hoc based on their time and availability.

Flexibility of time

The Jalasathis have created their own strategies to improve their efficiency in the program, tailoring their approach to local customs and beliefs. In Odisha, there is a widespread belief that spending money on Thursdays brings bad luck. Understanding this cultural norm, many Jalasathis have opted not to collect payments on Thursdays, as customers are often unwilling to transact on that day. By adapting to these beliefs, Jalasathis avoid unnecessary efforts and maintain positive relationships with their customers. This culturally sensitive approach has helped them improve their overall effectiveness, ensuring smoother interactions and better service delivery within the community.

Check-ins with customers

The well performing Jalasathis have come up with mechanisms to work with their customers. Each Jalasathi has different mechanism to convince customers to pay, to avoid rude interactions, and to support customers with grievances.

"This one customer was rude to me and called me names. Instead of talking to him, I just avoided going to his house for 3 months while I visited his neighbour and had pleasant conversations. Then, t̶the rude customer felt guilty and called me to his house and apologised. He also paid all the arrears." – WJS4C

"The family is very nice. They are old and sometimes they need help. So, I have shared my whatsapp number with them. Sometimes, they ask me to pick up their medicines on my way. I am happy to do it. They are really nice. They treat me like a daughter." – WJS2B

One Jalasathi adopted an interesting approach where she explained to the slumdwellers that if they cooperate and actively pay their bills, they will be eligible for other government schemes as well. While it was not true, she used it as a 'carrot' to increase revenue collection.

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"I organised a community meeting in my slum and explained that if they continue paying their bills, they might also be eligible for other benefits." – WJS1C

Picture 1 and Picture 2: Interaction with customer on their perception of the Jalasathi program

The Jalasathis and consumers have developed their own informal communication style based on what works for them. This has increased the revenue collection and built a sense of community.

For non -performing Jalasathis since the communication broke down with the assistant manager as explained in previous section and since the necessary support from assistant managers was absent, Jalasathis struggled to maintain the motivation required to successfully engage with consumers. Without guidance and backing from their managers, Jalasathis felt disconnected from the program's goals, leading them to invest minimal time in their duties. As a result, many underperforming Jalasathis spend less than five hours per week on the ground, which is insufficient to effectively reach out to potential consumers and establish themselves within their communities which also contributed to their low income.

This lack of time spent in the field has a ripple effect. Community recognition is a key component of a Jalasathi's success—when they are not actively present, they fail to build the relationships necessary for trust and rapport with consumers. The absence of visibility and engagement limits their ability to address concerns, register complaints, or onboard new customers, which further hampers their performance.

Without sustained effort and presence, Jalasathis in these wards are unable to create a strong network within the community, leading to underperformance and inefficiency. This not only affects the individual Jalasathis but also undermines the program's overall objectives in those areas, as the gap between Jalasathis and the communities they serve widens.

Using soft skills as Jalasathis

While for well-performing jalasathis, I did not hear any complaints about the lack of soft skills hindering performance, for non-performing Jalasathis it stood out as a problem. It was noticed that while some Jalasathis underperform due to a lack of support from assistant managers, there are instances where, despite receiving adequate support, they still struggle because they lack the soft skills necessary to successfully carry out their duties. Discussions with assistant managers revealed that in certain wards, only 1-2 urban poor women meet the minimum qualifications to become Jalasathis (as outlined in Chapter 2). In these cases, the recruitment committee has little choice but to hire candidates who meet the basic criteria, even though they may not have the interpersonal skills or experience required to excel in the role.

"they don't have soft skills such as persistence and understanding which is required to convince customers. We don't have any choice in recruitment. This makes the job difficult." – AM2C

Without continuous training and skill development, these Jalasathis often find it difficult to perform their responsibilities effectively. This inability to succeed in their tasks results in lower incomes, which quickly leads to demotivation. Once demotivated, Jalasathis tend to put in less effort, further diminishing their performance. This creates a vicious cycle of underperformance, where a lack of skills leads to poor outcomes, which in turn lowers their motivation and exacerbates their challenges.

5.1.2. Benefits and motivation for well-performing Jalasathis

Economic benefits corresponding to their time

The Jalasathis, previously housemakers, are now working on voluntary bases which has given them financial independence. I have classified Jalasathis making monthly Rs.8000-Rs. 35000 under well performing Jalasathis. Even though the range is high, it is corresponding to the time spent on ground. Most women are satisfied with their incomes.

Factors such as contributing to their kids' education or buying assets such a 2 wheeler has created a huge impact on their contribution as an earning member in their family. Another factor that was a co-benefit with additional family income was the respect that they received within the family and the family members included them in discussions on how to spend the money. Additional income has overall improved the quality of life within the family where most of the additional income was spent on the family.

"Now that when my kid asks for rs. 10 to buy a treat, I can just give it to him. It is my money. I don't need to ask anyone. I feel happy" – WJS1K

"My husband and I discussed and thought it is best if we bought a bike. That will help a lot with time management. With my additional income, it became affordable." -WJS1B

"My son says mom, its okay, you go out and work. We can manage the house while you are out." – WJS4C

"My son was struggling in school and because of my additional income, we were able to hire a tutor." – WJS2B

"My mother is sick. I am an unmarried woman who wasn't working before. I was seen as a liability. Now, with my income, I am the one buying medicines for my mother and saving for my younger sister's wedding." – WJS2C

Additional income has created a huge impact on their family life. As discussed in chapter 2.4, Kabeer defined economic empowerment in terms of resource, agency and achievement, all 3 attributes of economic empowerment are visible here. The women have resource (additional income) and the agency to spend the money where they deem fit.

Sense of identity and recognition

Another significant factor that keeps Jalasathis engaged in the program is the sense of identity and recognition they receive. Being associated with the government as Jalasathis has provided them with a distinct identity, which has led to increased recognition within their communities. This theme consistently emerged in conversations with Jalasathis. Wearing a uniform and carrying an ID card bearing the government logo has not only earned them respect in their households but also within their localities. In some section offices, dedicated spaces have been allocated for Jalasathis to sit and take breaks, further solidifying their status and making them feel valued within the system.

"When we leave our house in our uniform with tiffins [Lunch box]. *It feels like we are going to office same as all other officers we work with. We have a room where we work and sit. We have check-ins with the assistant managers like we are meeting a boss. It feels amazing to be working for the government"* – WJS5B

Picture 3: Author sitting in Jalasathi's office

Figure 6 captures the pride in these women when they showed me their room in the section office. Their room is equipped with new chairs from which they have not yet removed the plastic cover in order to keep them looking new. While having discussions in their room they were excitedly showing their uniform and their lunch boxes and how they feel they are part of the local government.

Other instances of identity and recognition include sense of recognition in their marital homes, having their own identity instead of being someone's wife, and being associated with the local government. These instances make women feel that they have their own identity and have power in their society.

"My mother-in-law brags to all the neighbours that I work for the government, and I have a government job" " -WJS3K

"Previously, when I used to go out, people knew me by my married surname. Now, when people see me, they recognise me as Jalasathi didi. They now know my family as family of jalasathi didi." – WJS1C

"I know it's not a government job. But it feels like it. We have a office where we come every day. My son has gotten advice for further studies by my assistant manager." – WJS3B

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"when people in my area face any problem with anything related to government, they come to me
for advice. I now know people in the government. I can talk to them and help my community."
"– WJS1K

As discussed in chapter 2, while the current scholarship around women's empowerment focusses on how economic empowerment leads to voice and agency. Social and psychological empowerment are defined as ability of women to improve their social realities. But in the current literature, instances of sense of recognition and identity are still not visible. This form of professional empowerment is not studied, and the model of engaging urban poor women as public service providers may offer additional co-benefits that are not yet captured in existing literature.

Flexibility

One of the key recurring themes that motivated Jalasathis to join and remain part of the program is the flexibility it offers. With no fixed working days or hours and no minimum time requirements, Jalasathis have full control over their schedules. This autonomy allows them to effectively balance their work and household responsibilities, which is particularly important as most Jalasathis are married and have additional duties at home. The ability to manage their own time not only enhances their productivity but also enables them to accommodate their customers' schedules more freely, fostering stronger relationships and better service delivery.

" I am making on average Rs. 15000. Before, when I was working as a data entry person, I was
making Rs. 20,000 but I had to work from 9am to 6am without breaks and just sit in a room.
Now, even though I am making less, I have flexibility which gives me time to spend with the kids.
I can take him to tuition and back. Even if you paid me Rs. 25,000 and gave me a job with
fixed hours, I wouldn't take it." - Jalasathi

"I get lunchboxes for my husband and my kids ready. Then I leave at around 11am. I come back
by 3pm and rest. I go out again from 6pm – 7:30pm to meet consumers who are not available in
the morning. It works out. I love it" - Jalasathi

"When I have a festival or some personal events like birthdays, or marriages, I don't need to get
leaves. I just communicate with my customers and take leaves." – Jalasathi

This flexibility is more than just a benefit; it is a lifeline that empowers Jalasathis to pursue meaningful work without compromising their family responsibilities. The program's

emphasis on autonomy not only improves the well-being of its participants but also enhances the quality of service they provide, underscoring the multifaceted value of empowering women through adaptable work structures.

Other Co-benefits

In addition to the flexibility, economic benefits, recognition, and professional development that Jalasathis enjoy, there are several other co-benefits that enhance their personal and professional lives. One such benefit is the advice and guidance they often receive from customers who are professionals, such as doctors, which helps them improve their own health and well-being. Through their work, Jalasathis also become more integrated into their local communities, building stronger social connections and networks. Moreover, their role provides them with increased access to government processes and services, which were previously distant or inaccessible. This closer interaction with government systems not only boosts their confidence but also empowers them to navigate and influence these structures more effectively.

Jalasathis have also emerged as community leaders, with local residents increasingly turning to them for advice and guidance. These co-benefits, along with the economic advantages, have contributed to their sustained involvement in the program. Many Jalasathis have expressed a clear interest in continuing their engagement, showing enthusiasm and commitment to their roles. Their growing influence within the community, coupled with the personal and professional benefits they receive, has reinforced their dedication to the program, making it a rewarding experience beyond just financial gain.

"Once, I fell sick and did not check in on my customers. I received a call from them when I did not go to their house. I told them I was sick. He was a doctor and he called me into his clinic and gave me treatment free of cost."

"My son was finishing high school and was looking for guidance. One of the customers called my family to their home and gave my son advice. He also helped shortlist colleges for my son"

"..while I was in their house, it started raining heavily. They took out their car and dropped me home."

The informal knowledge exchange facilitated through interactions with customers who are professionals, such as doctors, providing Jalasathis with improved access to health information and support. Furthermore, the program fosters stronger social capital as

participants become more integrated into their local communities, building robust social networks that support both professional and personal growth. The increased proximity to government systems and services, which were once perceived as inaccessible, empowers Jalasathis with greater confidence and the ability to navigate and potentially influence these structures.

5.1.3. Benefits and motivation for non-performing Jalasathis

While the benefits outlined for well-performing Jalasathis in section 4.1.3. do not apply to non-performing Jalasathis, discussions with these individuals reveal a key reason they continue with the program. Many non-performing Jalasathis remain involved because they hold onto the belief that the role might eventually become a permanent government job. Despite the government never implying or suggesting such a transition, these Jalasathis see potential in securing a more stable, formal position in the future and are reluctant to give up their place, just in case it materializes.

This hope persists even though many of them do not particularly enjoy the work. The prospect of future job security outweighs their dissatisfaction with their current responsibilities, leading them to stay in the program despite their lack of motivation and engagement.

5.2. Barriers to performance of Jalasathis

Most Jalasathis expressed that handling a diverse range of consumers posed a significant challenge. Their customer base includes high-income households, middle-income families, and urban slums, each with varying expectations and attitudes. One of the most common barriers encountered at the beginning was gaining consumer trust. Many residents did not recognize the Jalasathis or trust them enough to hand over payments, while others questioned their qualifications. In rare cases, some consumers were simply rude and refused to treat Jalasathis with respect.

To address these challenges, Jalasathis collaborated with their assistant managers and participated in behavior change meetings. In addition, assistant managers displayed hoardings featuring the names and faces of Jalasathis to increase their visibility and recognition within the community. Beyond attending joint community meetings, Jalasathis made frequent visits to their customers, focusing on building rapport and trust over time.

These strategies helped them overcome initial barriers, gradually earning the confidence and cooperation of the consumers they serve.

5.3. Benefits for the government in involving urban poor women in last mile access to water management services

In the previous section, we examined sub-question 1, which focused on the reasons for participation by urban poor women in the Jalasathi program and what are the benefits derived from participation. The section also discussed the difference of performance of well performing Jalasathis and non-performing Jalasathis. In this section, we will address sub-question 2, which explores the benefits for the government in involving urban poor women in co-production.

5.3.1. Revenue increase since inception and household coverage

The Jalasathi program, which was launched in 2019, has seen remarkable success over the past five years, with state revenue increasing by an **impressive 6541% [2]**. Notably, this surge in revenue has occurred without any increase in user fees, underscoring the efficiency of the program. The data suggests that for every ₹100 the government invests in Jalasathi incentives, they are generating a minimum return of ₹1200. This demonstrates that the program is not only highly effective but also extremely profitable for the Government of Odisha.

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[2] Total increase in annual revenue since inception of the project = Revenue of year 23-24/ Revenue of year 2019-20 *100 (72,39,65,635/1,10,68,659 *100 = 6541%)

Table 2: Revenue collection by State Government

Financial Year	Revenue Collected	Incentive Paid	Net Increase in Revenue	Return on Investment[3]
2019-20	₹ 1,10,68,659.00	₹ 8,15,653.00	₹ 1,02,53,006.00	1257%
2020-21	₹ 16,54,35,254.00	₹ 90,19,843.00	₹ 15,64,15,411.00	1734%
2021-22	₹ 16,91,15,857.00	₹ 1,41,81,457.00	₹ 15,49,34,400.00	1093%
2022-23	₹ 65,65,68,816.00	₹ 4,14,09,412.00	₹ 61,51,59,404.00	1486%
2023-24	₹ 72,39,65,635.00	₹ 4,68,95,123.00	₹ 67,70,70,512.00	1444%
	₹ **1,72,61,54,221.00**	₹ **11,23,21,488.00**	₹ 1,61,38,32,733.00	1437%
Source: Data received from EIC, PHEO, Government of Odisha				
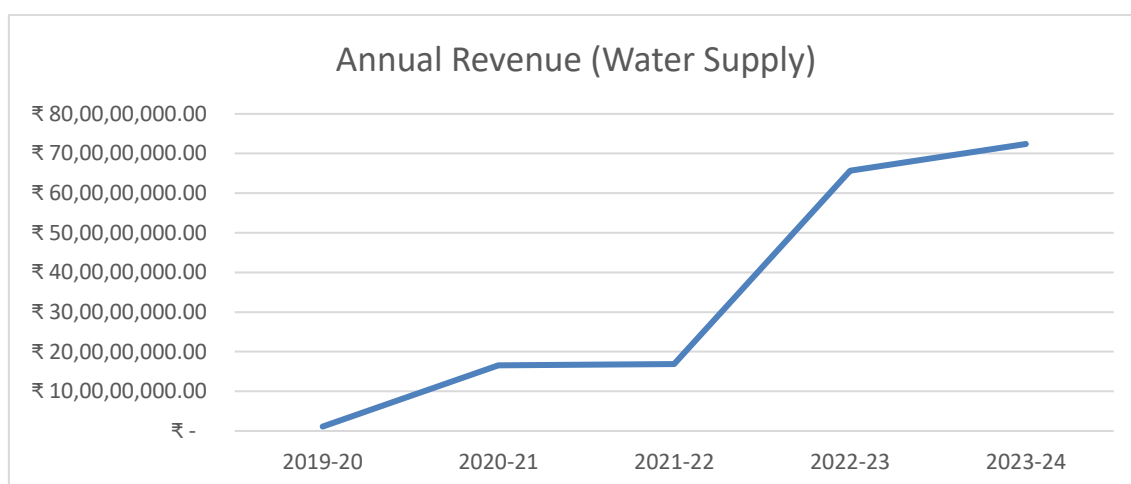
Figure 6: Annual revenue increase since Jalasathi Program

Source: Graph made by author based on data received from Government of Odisha

Given the program's success, it is now being scaled up at the national level, with the hope of replicating its positive outcomes across other states. The combination of economic profitability improved public service delivery, and the empowerment of local women has made the Jalasathi program a model for innovative governance and sustainable development.

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[3] Return of investment = Net increase in revenue / incentive paid

5.3.2. Qualitative evidence for success of the program

Grievance Redressal

Since the implementation of the Jalasathi program, the grievance redressal process between the section office and customers has significantly improved. Previously, customers had to either visit the section office in person or call a landline to register complaints regarding water supply issues. With Jalasathis now serving as intermediaries, complaints are being reported directly to them in real time. This has streamlined the process, ensuring that issues are addressed and resolved much more quickly—often within 48 hours, in line with the official policy. This enhanced efficiency has contributed to greater customer satisfaction and strengthened trust between the community and the government.

"These Jalasathis, when they are making their rounds in the community, if they see any problems they immediately call me or my team. They register the complaints and then share the updates with the consumers." – AM5B

"This time, when we did not get water pressure, we just talked to xx, our Jalasathi. She Opened the tank and meter – clicked picture. Someone from office was there in an hour. She is amazing." – C3

Involvement of Jalasathis have improved the grivence redressal time for consumers and has had a positive impact on their relationship with the local government.

Increase in coverage of household

Before the Jalasathi program, customers were required to physically visit the office to pay their water bills, and there was no proper system for tracking payments. This lack of oversight often resulted in dues becoming arrears without any enforcement, largely due to insufficient human resources. However, with the implementation of the program, each area now has a dedicated Jalasathi, which has significantly increased household coverage for piped water supply.

The program has also facilitated the shift of many consumers to metered water supply connections, improving both accountability and resource management. Additionally, Jalasathis have played a key role in identifying "ghost consumers"—households that appear on ward lists but are either abandoned or unoccupied. By addressing these inefficiencies, the program has contributed to more accurate billing and better service delivery, ultimately benefiting both the government and the consumers.

*"These women know who lives in what house. They know who pays and who avoids. They are very smart. They were just telling me last week that they were doing meetings with these households[*Household who are reluctant to pay] *to pay and convert to metered connection as this will give them future benefits." – AMC1*

5.4. Chapter Summary

In this chapter, we addressed sub-research questions 1 and 2, which explore how the Jalasathi program benefits urban poor women in Odisha and the local government and how they are participating in the program. Empirical evidence shows that the program delivers economic benefits similar to those discussed in existing literature, including increased voice and agency within the family.

New findings highlight unique co-benefits such as a sense of recognition and identity linked to their professional roles, along with significant flexibility that allows Jalasathis to balance work and household responsibilities. This model of co-production, where the government collaborates with urban poor communities, is novel, and these co-benefits are significant and warrant further investigation. The program's benefits to the local government include improved service delivery and stronger community engagement.

Chapter 6 Assistant managers are key to program success and failure

This chapter addresses sub-question 3, which explores how, and to what extent, street-level bureaucrats—specifically assistant managers—exercise their discretion in facilitating the co-production of water management services. The analysis examines the role of assistant managers in shaping the collaboration between the government and Jalasathis, and how their individual decision-making impacts the effectiveness of the program.

6.1. Role of Assistant Manager in the Jalasathi Program

The existing documentation and policy design document which includes the standard operating procedure and e-gazette mention roles and responsibilities of Jalasathis, WATCO/PHEO, and SUDA (State Urban Development Authority). None of the documents specifically include any written roles and responsibilities for assistant managers or other street level bureaucrats. There are certain roles and responsibilities mentioned under WATCO/PHEO section in chapter 3 which are performed by assistant managers.

Based on discussions with the assistant managers, there are no written guidelines, and the managers are informed about the program. They have monthly or ad hoc meetings with the general manager at the state government where they discuss program implementation and other problems they face. Based on the meetings, assistant managers perform their duties under the program.

From the discussions with Jalasathis, Assistant Managers, the General Manager, the Engineering-in-Chief, and the Principal Secretary of the Housing and Urban Development Department, it became evident that state-level bureaucrats, including those responsible for the program's design, rarely discussed the roles and responsibilities of street-level bureaucrats (SLBs). Officials working for WATCO/PHEO at the state level were primarily focused on metrics like revenue generation and household coverage, without addressing the critical role assistant managers play in ensuring the program's smooth operation on the ground.

State-level bureaucrats involved in program design, as well as those overseeing its administrative implementation, emphasized women's empowerment as a central goal of the program. Their focus was on how efficient it is to work with women-led initiatives, as opposed to contractors, and on fostering principles of community ownership. While they acknowledged the additional revenue as a positive outcome, their primary concern was the

empowerment of women and the social benefits it brings, rather than the day-to-day challenges faced by assistant managers in executing the program.

As part of my field work, I visited 3 cities and talked to 7 assistant managers. 4 of the assistant managers were in managing areas where Jalasathis were performing well as per the above defined criteria whereas 3 were from not so well performing areas. Based on the discussions, I have tried mapping the roles and responsibilities of SLBs in the program. The list presented below is not exhaustive. In table 3 below, I have mapped out the various activities required at the ground level for the successful implementation of the program. Additionally, I have identified the roles and responsibilities of the different street-level bureaucrats involved in each activity, outlining who is responsible for what tasks.

Table 3: Responsibilities of SLBs for execution of program

Recruitment and Onboarding	Day to day program execution	payment
Shortlisting of potential Jalasathis – Community Organiser (ULB)	Conduct introductory meetings with consumers Assistant Manager	Collect receipts and maintain records of payment Assistant Manager office
Interview and finalising Jalasathis Community Organiser (ULB)	Monitor performance of Jalasathis Assistant Manager	Calculation of incentives for Jalasathis PMU, Jalasathi program
Providing Uniform, ID card, MPoS machine – employee in assistant manager's office	Address grievances of consumers Assistant Manager	Timely disbursement of payment/incentives to Jalasathis PMU, Jalasathi program
Allotment of areas to Jalasathi – Assistant Manager	Address grievances of Jalasathis related to mPoS and other technical matters Assistant Manager	Grievance redressal for payment related issues for Jalasathis Uncertain
Onboarding and training Assistant Manager	Report on program at WATCO/PHEO meetings Assistant Manager	

The above table highlights the various tasks performed by assistant managers, community organisers, and the table also highlights that there are certain tasks which are happening day-to-day but are neither documented nor did they come up in the discussions with the stakeholders. For such tasks, there is complete discretion on how to execute them to ensure day to day functioning of the program.

This reliance on discretion can have both positive and negative impacts on the successful execution of the program. In the absence of clear guidelines, SLBs may either innovate to address local challenges effectively or, create inconsistencies in service delivery. In the next section, we will explore specific examples from the table to examine how discretion manifests in different contexts and its effects on program outcomes.

6.2. Examples of SLB discretion

6.2.1. Allotment of areas to Jalasathi

Based on the interviews (AM1B-AM3B, AM1C- AM3C, AM1K), one of the key responsibilities for the assistant manager arose to be equitable distributing area/number of households between Jalasathis. It is also an unwritten principle that the distribution of households should be a mix of slum and non-slum households to prevent any income disparities between Jalasathis and to ensure each Jalasathi has the opportunity to earn a high incentives

In practice, this critical task is left open for assistant managers without anyone monitoring or assessing if the area allotment is equitable. While in most cases, the distribution was equitable there were areas where it wasn't . It all came down to how responsive the assistant manager was to the needs of the Jalasathis.

From discussions, it was revealed that in areas where the distribution was equitable, there were multiple factors at play. The first one was the intention of the assistant manager to perform his duty well for praise at meetings with general managers.

"See, our section performs really well. Only last week, in the general meeting I was praised for how well the revenue collection is happening in my section. My Jalasathis are very good" – Assistant Manager, Bhubaneswar

During discussions about how areas are allocated and how complaints from Jalasathis are handled, an interesting aspect of social accountability emerged. In sections where area distribution was equitable, the assistant manager felt a strong sense of social accountability.

This was reflected in the fact that Jalasathis would directly visit the office to voice their concerns if they felt they were being treated unfairly. The assistant manager, aware of this dynamic, took their complaints seriously and made efforts to ensure fairness in allocation.

"Oh, if the allotment is not equal, the Jalasathis just come to my office and sit and demand fair treatment. I don't have the option of allotting inequitably. They will not just leave my office " – Assistant Manager (section office, Bhubneswar)

Figure 7: Jalasathis sitting in assistant managers office

The above picture is an example of the relationship between assistant managers and Jalasathis. The Jalasathis entered the assistant manager's room while we were having a discussion about the program and chimed in with their inputs and how they felt about the program and their relationship with the assistant manager.

In contrast, in sections where distribution was not equitable, a different scenario played out. Even though Jalasathis raised complaints about the unfairness of their allocations, the assistant manager did not feel the same level of accountability. Instead, these complaints were often dismissed, with the assistant manager attributing the situation to "luck" rather than addressing the concerns. In such situations, the Jalasathis also felt demotivated to work and mentally quit.

"Sir says it's our luck that we just got allotted households in slum. Person x has better luck that she got high income households. What do we say then?" – Jalasathis (section office where distribution is not equitable)

This also highlighted the fact that the Jalasathis do not have any formal grievance redressal mechanisms to address concerns related to the behaviour of assistant managers. Without a clear system in place, assistant managers are often able to act with considerable autonomy, feeling comfortable making decisions as they see fit. This lack of accountability at both the state and city levels allows assistant managers to operate without oversight, as their roles and responsibilities are neither clearly defined nor subjected to regular evaluation and no vertical accountability. The absence of formal processes to assess or monitor the assistant managers' performance means that their actions, whether fair or biased, go unchecked.

This leads to the Jalasathis being highly motivated or demotivated to perform which affects their incomes which has significant impact on their empowerment as discussed in the previous chapter. It also affects the overall revenue collection and household coverage.

Based on these factors, we identify that the differences can be attributed to intrinsic motivation of the assistant managers. Since in the current scenario, there is a lack of rules, it can be explored whether having clear rules will improve policy outcomes. It can also be explored whether the policy outcomes can be influenced by further motivating assistant managers by introducing incentives based on achievement of outcomes of the program. A clear grievance redressal system for Jalasathis could also play a role in improving overall performance of the program.

6.2.2. Onboarding and training

Assistant managers are not involved in recruitment of Jalasathis. Once the Jalasathis are recruited by the urban local bodies, they are handed over to WATCO/PHEO. The onboarding and training of Jalasathis involves various steps such as orienting Jalasathis on their roles and responsibilities, orienting Jalasathis on the ways of working at their section office, and training the Jalasathis to use the mPOS machine

Such onboarding processes vary from section office to section office. Based on discussions with various assistant managers across three cities, it is evident that each assistant manager has come up with their own mechanisms for onboarding. While in some section office, the Jalasathis performing well informally teach the new recruits, in other places they are just

handed the list of houses and Jalasathis need to figure out how to perform their roles on the job.

When it comes to orienting Jalasathis on the ways of working, each section office has developed their own mechanisms for performing day to day tasks. Some section offices have whatsapp groups between Jalasathis, assistant managers and the staff working on them for daily communication, while in other section offices, the Jalasathis are supported to call the technical personnel in the office based on their problems.

While there have been trainings done for assistant managers and Jalasathis by the NGO providing technical support to the program, there is still no formal monitoring mechanisms for performance of assistant managers.

6.2.3. Monitoring the performance of Jalasathis

One of the main roles and responsibilities of assistant manager which could be inferred from the discussions is the monitoring the performance of Jalasathis.

Currently, there are no key performance indicators which are defined for Jalasathis nor are there any guidelines on how to monitor their performance. Based on discussions with different assistant managers, each section office has developed their own monitoring mechanisms to track performance, household coverage, and revenue collection.

In one section office, the assistant manager has started a healthy competition between Jalasathis where he weekly shares on whatsapp group who covered the most households and shares an appreciative message. Jalasathis work hard to be featured on the weekly message.

"I have started a competition in the WhatsApp group where every week, I put the picture of a Jalasathi who covered most number of households and give appreciation. They feel happy and motivated to work" – Assistant Manager, Bhubaneswar

In another section office, Assistant Manager sits with Jalasathis weekly and helps them plan their targets for the week. Based on the planning, Jalasathis update their progress on their whatsapp group at the end of every day.

" We meet once a week where each Jalasathi comes with the plan, which houses will be covered each day. At end of the day, they write on whatsapp group how many houses they covered. They also call us if they have any problems and we resolve them immediately" – Assistant Manager, Cuttack

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In another section office, they have an open-door policy which means Jalasathis just show up at the office to discuss their progress and problems. Based on discussions, assistant manager supports the Jalasathis on what is needed. In another section office, since the assistant manager is not very involved in the day to day of the program, he organises meetings every 1 or 2 months where they don't discuss anything substantial.

Each section office has come up with their activities on how to monitor Jalasathis. While in the well-performing sections, the assistant manager is responsive to the needs of Jalasathis and supports them in solving challenges they face in the field; in non-performing sections, either the assistant manager is not responsive to the needs of the Jalasathis or the Jalasathis do not possess the necessary skills to perform their duties.

At the same time, in both situations, it is not required to monitor the performance of Jalasathis and the performance of assistant managers with respect to support to Jalasathis is also not tracked.

This leads to the Jalasathis being highly motivated or demotivated to perform based on their interactions with the managers. This also directly impacts their incomes and overall revenue collection and household coverage.

Based on these factors, the gap that comes again is the lack of guidelines/ requirements for monitoring the performance of Jalasathis. In practice, it can be seen that this gap is filled by assistant managers by inventing their own ways to run the program which either leads to positive or negative outcomes. It is again dependent on their intrinsic motivation since there is ad-hoc monitoring of the performance of assistant managers and there are no incentives linked to the execution of the program for assistant manager.

6.3.3. Lack of monitoring of Assistant Managers

Assistant managers are responsible for water and sanitation services in their ward. As part of water management, they are responsible for managing and coordinating with the Jalasathis to ensure revenue collection, water quality testing and household coverage.

As explained in section 1.4.2, assistant managers report to the general manager (WATCO)/ EIC (PHEO) for overall management of water and sanitation services which includes implementation of Jalasathi program in their wards. Since all assistant managers report to the same general manager, it can be assumed that all of them get same instructions and have similar autonomy.

Based on discussions with the assistant managers and GM, WATCO there are no written guidelines on whether the performance of assistant managers needs to be evaluated with respect to execution of Jalasathi program. There is also no incentive or punishment based on outcomes achieved in terms of revenue collection or household coverage. There is no mechanism by state to monitor the performance of assistant managers and hence in meetings, ad-hoc monitoring happens in the form of asking if there are any problems and finding solutions. At state level, EIC/ GM, WATCO are also not connected with Jalasathis or consumers and hence, they do not have visibility on how assistant manager is supporting the program apart from revenue generation.

This leads to the implementation of program being left at discretion of assistant manager and how they support the implementation of program depends on their intrinsic motivation.

Based on these factors, the gap that comes again is the lack of guidelines/ requirements for monitoring the performance of assistant manager with respect to achieving the objectives of the program. In practice, it can be seen that this gap is filled by assistant managers by inventing their own ways to run the program which either leads to positive or negative outcomes.

6.4. Chapter summary

This chapter found that nowhere in the program design or implementation guidelines is the role of the street level bureaucrats discussed. While discussing the program at state level with the General Manager (WATCO), EIC (PHEO), or State Mission Director, Government of Odisha, it came out that their priority is revenue and household coverage or woman empowerment. At no point in discussions was the role of SLBs in successful implementation discussed.

The findings in this chapter also pointed out that at the ground level, SLBs are using their discretion without any monitoring or vertical accountability mechanisms. There are also no key performance indicators for the SLBs or Jalasathis neither are any monitoring mechanisms in place. There is also no mechanism for grievance redressal against the assistant manager.

The empirical findings corroborate the claims in the existing literature on how discretion can lead to various policy outcomes based on context and professional judgement (Hupe, 2019). SLB theory gives a lens to understand how Jalasathi program is successful and not successful in similar contexts.

While the theory highlights the importance of ground-level discretion to adapt to changing situations, in the Jalasathi program, the unchecked discretion of assistant managers has caused visible impacts on success and failure of the program. This highlights the need for clear operational principles and effective monitoring mechanisms.

Chapter 7 Conclusion

This research paper set out to explore How does the Jalasathi program benefit urban poor women in Odisha as well as the local government, and what is the role of SLB in facilitating this co-production of water services?

Response to research questions

Sub-question 1: How and why do urban poor women participate in the Jalasathi program?

The findings show various benefits for women to participate in the program. First, By participating in the program, they are getting empowered economically and gaining voice and agency within their households and are contributing to family decisions. Additionally, women are receiving significant co-benefits which go beyond empowerment in traditional sense. Sense of recognition and professional identity, flexibility and social capital are key factors for Jalasathis to continue with this program. Flexiblity in working hours become one of the key findings as women felt such flexibility immensely benefitted them and they had time to work and manage household chores without any hurdles.

We also saw difference in how well-performing and non-performing jalasathis participated in the program. While well-performing Jalasathis took initiative and had relationships with their assistant managers and consumers, non- performing jalasathis failed to do so. The reasons for failure came out to be first, lack of support from assistant managers and second, lack of soft skills required to be a well performing jalasathi.

Sub-Question 2: How does the state government of Odisha benefit from involving urban poor women in such co-production?

For the state government, the primary benefit was huge. Since the inception of the program, the revenue has increased by 6541% without an increase in user charges. There we also other co-benefits for the government as well. They included better connect with their consumers which led to quick grievance redressal. Public opinion of the local government significantly improved because they had Jalasathi as a bridge between government and the citizens.

Sub – Question 3: How do Street Level Bureaucrats use their discretion and what are the effects of doing so on the co-production of water services and women's empowerment?

For the street level bureaucrats, this case study serves as a clear example of how they significantly influence policy outcomes. SLBs' capacity to adapt policies to local needs has facilitated flexible and context-specific solutions benefits both the government and the Jalsathis. However, the absence of monitoring mechanisms and performance indicators has allowed discretionary power to go largely go unchecked, sometimes resulting in inconsistencies in service delivery and even undermining the empowerment potential for Jalasathis. Assistant managers have significant authority that can either enable or hinder the program's success, depending on how their discretion is applied. This finding aligns with existing literature on SLB discretion and its contextual impacts (Hupe, 2019), but it also reveals the critical need for balanced oversight.

This research adds to existing literature by showing how SLBs' roles in co-production impact women's empowerment. While most studies focus on the pros and cons of SLB discretion, this one connects SLB actions directly to empowerment outcomes in this type of co-production. The findings show that when SLBs act without accountability, it can undermine both empowerment potentials and service delivery. This highlights the need for oversight and performance measures in successful co-production programs.

The role of street level bureaucrats become critical in attaining the objectives of co-production. It is seen that, in case of Jalasathi, both objectives of program which are efficient public service delivery and women empowerment go hand in hand. It was seen that where the women empowerment objectives were achieved, the revenue and household coverage was also increased. Whereas, in areas where women empowerment outcomes were not achieved, the revenue and household coverage also did not increase. The connecting link for both was the assistant manager and their involvement in the program. The way their discretion was used significantly contributed to the outcomes of the program. This case study reiterated the importance of vertical accountability to keep discretion in check in order to have uniform success in implementation of program.

These findings contribute to a nuanced understanding of women's involvement in co-production, showcasing how structured opportunities can lead to empowerment beyond the economic realm. The research shows how by expanding the role of women within government-led initiatives can create pathways for women's empowerment through social recognition and flexibility.

In conclusion, the Jalasathi program in Odisha is an interesting case study to understand how co-production can empower women and enhance public service delivery and there is further need to deep-dive into such co-production models which partner with urban poor women for dual purposes efficiency and empowerment.

Appendix 1 Consent Form

I am Rishika Srivastava. I am a masters student at Erasmus university. I will record our discussions so that I could be able to convert it into a research paper studying the Jalasathi program. For these purposes, I will be recording our conversation. It will be anonymised and will not be shared with anyone. Participation is completely voluntary and you can withdraw your consent at any time. the research is for educational purposes and the results may published. Do you agree and may I proceed to discussion.

This consent has been adapted from lecture slides from session 3 of ISS 3207 Qualitative interviewing 23-24 (Arul Chuib & Ahmed El Assal, 2024).

Appendix 2: Questionnaire guides

The semi-structured questionnaire guide for conducting research and use the responses by the participants to further probe and build detailed understanding (Rubin and Rubin, 2005; Rishika Srivastava, 2024).

Table 4: Questionnaire guide for Jalasathis

Phases of interview	Topic	Sample questions
Introductory phase	Basic information	Q: Hello, may I know your name? Q: How old are you? Q: How long have you been living here?
	Details about their family and kids	Q: who all are in your family? Q: How old are your kids? Q: what does your husband do? Q: what do your kids do?
	About the MSG	Q: How long have you been part of the MSG? Q: How regularly do you meet? Q: how long have you been saving? Q: How long have you been Jalasathi? Q: Have you participated in any other program?
Main Questions	About Jalasathi program	Q: what does your day to day look like as Jalasathi? Q: How many days a week do you work? Q: What is your area? Q: what kind of households are included? Q: How much do you earn in a month? Q: does your monthly income change across different months? Q: If yes, then why does your income change?
	About Family	Q: Does your husband work? Q: how much does he make?

		Q: are there any other family members who earn?
	Consequences	Q: How has the additional income affected your family? Q: How do you use your income? Q: Are there any other benefits of being part of Jalasathi?
	Relationship with government	Q: who do you report to at the municipality? Q: How often do you meet with them? Q: How is your relationship with the municipal officer?
	Relationship with customers	Q:can you describe the kinds of customers do you visit? Q: How often do you visit the same people? Q: Do your customers recognise you? Q: How do your regular interactions with the customers go?
	Benefits where they live	Q: Why did you choose to work as a jalasathi? Q: Has working as a jalasathi affected your life? Q: What are the positive/negative affects of working as a Jalasathi? Q: Have you ever considered quitting the program? If yes, why? Q: has the overall quality and accessibility of public services in your area increased?

Table 5: Questionnaire guide for Customers

Phase of interview	Topic	Sample questions
Introduction	Introduction	Q: May I know your name? Q: How long have you been living here?

	About the water supply	Q: do you have tapped water supply from the municipality?
		Q: Since when do you have that?
		Q: How long has a Jalasathi been coming to your house?
	About the Jalasathi	Q: Do you know the name of Jalasathi that comes to your house?
		Q: How frequently does she come?
		Q: Do you pay user charges at home or at the municipality?
		Q: What services has the Jalasathi offered to you?
		Q: How satisfied are you by the services?
	About the program	Q:Did you know about the program before the Jalasathi came?
		Q: Do you trust her?
	Before the program	Q: How did you pay user charges before the program?
		Q:Did the water get tested before?
		Q: Did your bill get reassessed?
		Q: How did you feel about that?

Table 6: Questionnaire guide for Assistant Managers

Phase of interview	Topic	Sample questions
Introductory phase	Introduction	Q: May I know your name and designation?
		Q: How long have you been the assistant manager?
		Q: How long have you been working with Jalasathis?
		Q: What other responsibilities do you have?
		Q: How does your day to day look like?

Main Questions	About the program	Q: What do you know about the program?
		Q: What are your responsibilities as part of the program?
	About the Jalasathis	Q: How are Jalasathis recruited?
		Q: Once they are recruited what is the next step?
		Q: How are areas allotted? (ask for guidelines)
		Q: What are the guideline for allotment?
		Q: How often do you check in with the Jalasathi?
		Q: How do you track Jalasathi performance?
	Grievance redressal	Q: is grievance redressal a part of your responsibility?
		Q: What kinds of grievances do you get from Jalasathis?
		Q: What kinds of grievances do you get from customers?
	Accountability	Q: Who do you report to?
		Q: How do you keep track of which houses are allotted?

Table 7: Questionnaire guide for EIC, PHEO & General Manager, WATCO

Phase of interview	Topic	Sample questions
Introductory phase	Introduction	Q: May I know your name and designation?
		Q: How long have you been the EIC/GM?
		Q: How long have you been working with Jalasathi program?
		Q: What other responsibilities do you have?
		Q: How does your day to day look like?
Main Questions	About the program	Q: What do you know about the program?
		Q: What are your responsibilities as part of the program?

	About the Jalasathis and Assistant Managers	Q: How are Jalasathis and Assistant Managers recruited?
		Q: Once they are recruited what is the next step?
		Q: How are areas allotted? (ask for guidelines)
		Q: How often do you check in with the Assistant Manager and Jalasathis?
		Q: How do you track Assistant Manager's performance?
	Grievance redressal	Q: is grievance redressal a part of your responsibility?
		Q: What kinds of grievances do you get from Jalasathis?
		Q: What kinds of grievances do you get from customers?
		Q: What kinds of grievances do you get from Assistant Managers?
	Accountability	Q: Who do you report to?
		Q: How do you keep track of which houses are allotted?

Appendix 3:

Codes assigned to Jalasathis are based on the following criteria:

1. Well performing jalasathis – WJS(city – B,C,K) (Number)
2. Non - performing jalasathis – NJS(city – B,C,K) (Number)
3. Assistant Managers – AM(number)(City)

S.no	Code	City	Income
1	WJS1B	Bhubneswar	Rs.30,000
2	WJS2B	Bhubneswar	Rs.14000
3	WJS3B	Bhubneswar	Rs.20,000
4	WJS4B	Bhubneswar	Rs. 17000
5	WJS5B	Bhubneswar	Rs. 10,000
6	WJS1C	Cuttack	Rs. 11,000
7	WJS2C	Cuttack	Rs. 9000
8	WJS3C	Cuttack	Rs. 15000
9	WJS4C	Cuttack	Rs. 16500
10	WJS1K	Khordha	Rs. 8500
11	WJS2K	Khordha	Rs.10000
12	WJS3K	Khordha	Rs. 9000
13	NJS1B	Bhubneswar	Rs. 4000
14	NJS2B	Bhubneswar	Rs. 5500
15	NJS3B	Bhubneswar	Rs. 3000
16	NJS4B	Bhubneswar	Rs. 3500
17	NJS1C	Cuttack	Rs. 3500
18	NJS2C	Cuttack	Rs. 3000
19	NJS3C	Cuttack	Rs. 4500
20	NJS4C	Cuttack	Rs. 5000
21	NJS4K	Khordha	Rs. 4500
22	AM1B	Bhubneswar	
23	AM2B	Bhubneswar	

24	AM3B	Bhubneswar	
24	AM1C	Cuttack	
25	AM2C	Cuttack	
26	AM3C	Cuttack	
27	AM1K	Khordha	

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