

**Finding Effective, Contextual Solutions for Urban Resilience: Piloting Proposed  
Decision Support Framework (SECURE) with emphasis on GESI in the Indian Context**

**Revised Draft Report on Context Analysis**

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## 1. Introduction

Ajmer, a historic city located in the heart of Rajasthan, India, boasts a rich tapestry of cultural heritage and strategic importance. Established in the 7th century by the Chauhan dynasty, Ajmer has been a focal point of historical significance through various eras, including the Mughal period and the British colonial era. The city's lush environment, often likened to the verdant landscapes of Kashmir, has seen profound transformations from a fertile agricultural hub to a bustling urban center. (Moini, S. L. H., 1987)

The early history of Ajmer saw it thrive as a green and fertile region, with cattle from Mewar grazing in its expansive pastures. The city's climate and fertile land made it a vital agricultural zone. However, as the city evolved, particularly from the 19th century onwards, significant changes began to reshape its landscape and socio-economic fabric. The informal settlement around Ajmer began around 1870, primarily driven by railway workers who constructed mud houses due to the lack of accommodation. This period marked the beginning of Ajmer's transformation from an agrarian society to an urban settlement.



Image Source: *Field Data, 2024*

The mid-20th century brought further infrastructural developments, such as the introduction of water pipelines in 1960 and the construction of permanent houses following the flood of 1975. These changes catalyzed the city's growth, but also brought challenges related to urban planning, resource management, and socio-economic disparities. Ajmer's

Ward 48, for example, reflects a community predominantly composed of the Koli (Scheduled Caste) population, many of whom migrated to the city as railway workers. This community, along with others, engages in informal economic activities like bidi making, flower garland crafting, and daily wage labor, leading to economic instability due to low and irregular incomes.

The governance structure in Ajmer is multifaceted, involving multiple agencies such as the Ajmer Municipal Corporation (AMC), the Public Health Engineering Department (PHED), and the Ajmer Development Authority (ADA). Despite their roles, these agencies often face challenges in coordination and resource allocation, impacting the development and maintenance of essential infrastructure. Community-based organizations (CBOs), non-governmental organizations (NGOs), and self-help groups (SHGs) have become pivotal in filling these gaps, advocating for better services, and supporting the community during crises, such as water shortages.



Image Source: *Field Data, 2024*

Environmental degradation in Ajmer has been a significant issue, driven by factors such as deforestation and rapid urbanization. These activities have led to reduced rainfall, increased temperatures, and persistent water scarcity. The transition from wells to piped water systems has not fully alleviated these issues, as residents often face poor water quality and limited availability. The health implications are severe, with diseases like malaria becoming more prevalent due to stagnant water and inadequate drainage systems.

In response to these challenges, the SECURE Decision Support Framework was applied in Ajmer to bolster urban resilience. This framework focuses on integrating community perspectives into resilience planning, emphasizing sustainable development, social equity,

and effective governance. The field data collected through participatory methods, such as historical mapping, Venn diagrams, transect walks, interviews, focus group discussions, and Participatory Rural Appraisal (PRA) techniques, provided a nuanced understanding of the local context. These methods facilitated a comprehensive analysis of Ajmer's historical background, socio-economic profile, governance structure, and environmental conditions.

The subsequent sections of this report evaluate the application of the SECURe framework in Ajmer, specifically assessing its effectiveness in enhancing urban resilience, integrating Gender Equality and Social Inclusion (GESI) considerations, and identifying lessons learned and areas for improvement. The findings underscore the community's adaptive strategies, the critical role of CBOs and NGOs, and the need for ongoing community engagement, capacity building, and policy support to achieve sustainable urban resilience. This evaluation aims to provide actionable insights and recommendations for strengthening urban resilience in Ajmer and similar contexts.

## **Background and Context**

Urban Climate Change Resilience is a multifaceted concept that encompasses the ability of cities to withstand, adapt to, and thrive in the face of climate-related shocks and stresses. This resilience operates at three crucial levels:

1. The survival of city systems
2. The adaptability of people and organizations
3. The continued support from institutional structures

However, building true resilience requires more than just robust infrastructure and policies. It necessitates an understanding of how climate change impacts different social groups disproportionately, particularly in informal settlements where vulnerabilities are often magnified.

## **The SECURe Framework and GESI Integration**

Recognizing this complexity, the International Institute for Environment & Development (IIED) developed the SECURe (Solutions for Enhanced Climate-change Urban Resilience) framework. This decision support tool aims to bridge the gap between knowledge and practice in climate adaptation strategies, focusing on context-specific solutions to climate risks.

Our project takes this framework a step further by integrating a strong Gender Equality and Social Inclusion (GESI) component. This integration is crucial because it ensures that the unique needs, capacities, and vulnerabilities of different genders and marginalized communities are not just acknowledged but actively addressed in resilience-building efforts.

## 1.1 Project Overview

### Project Title

"Finding Effective, Contextual Solutions for Urban Resilience: Piloting Proposed Decision Support Framework (SECURE) with emphasis on GESI in the Indian Context"

### Lead Organizations

- Implementing Partner: PRIA (Participatory Research in Asia)
- Supporting Partner: International Institute for Environment & Development (IIED)

### Project Goal

To develop and pilot a decision support framework that enhances urban resilience in informal settlements by integrating Gender Equality and Social Inclusion (GESI) considerations.

### Key Components

#### SECURE Framework Application:

- Utilize the SECURE (Solutions for Enhanced Climate-change Urban Resilience) framework developed by IIED.
- Enrich the framework with a strong GESI component to address the needs of vulnerable and marginalized groups.

#### Pilot Location:

- City: Ajmer, Rajasthan, India
- Focus: Two informal settlements (Ward no. 2 & 48) facing acute climate change-related challenges

#### Targeted Issues:

- Water scarcity
- Poor sanitation
- Health risks
- Gender disparities in climate impact

#### Methodological Approach:

- Historical mapping
- Social mapping
- Focus group discussions
- Transect walks
- Key informant interviews

## **GESI Integration:**

- Address gender disparities and social exclusion in climate resilience planning
- Focus on women's unique challenges in water management, health care, and community leadership

## **Expected Outcomes**

- Refinement and validation of the SECURE framework's effectiveness in creating inclusive and equitable resilient urban environments.
- Development of context-specific, sustainable solutions that benefit all community members, particularly the most vulnerable.
- Comprehensive understanding of socio-economic, cultural, and environmental contexts in informal settlements.
- Insights to inform future urban resilience planning and policymaking in India and similar contexts globally.

## **Significance**

This project represents a crucial step towards building resilient urban communities that can effectively address climate change challenges while ensuring equitable benefits across all societal segments. By integrating GESI considerations, the project aims to develop more comprehensive and inclusive interventions, potentially serving as a model for urban resilience efforts in other tier-2 cities in India and beyond.

## **1.2 Objectives**

1. **Context Analysis and Resilience Strategies:** Examine Ajmer's demographic profile, urbanization trends, governance structures, climate change vulnerabilities, and existing resilience strategies, particularly in informal settlements.
2. **Evaluation of the SECURE Framework:** Assess the framework's adaptability to Ajmer's context, its effectiveness in integrating Gender Equality and Social Inclusion (GESI) principles, and the challenges faced.
3. **Participatory Assessment and Co-production Methods:** Review outcomes from community mapping, gender-specific vulnerability discussions, stakeholder engagement, dialogue platforms, and pilot testing activities.
4. **GESI Integration and Financial Structures:** Analyze the implementation of GESI strategies, budget allocations, funding effectiveness, and propose

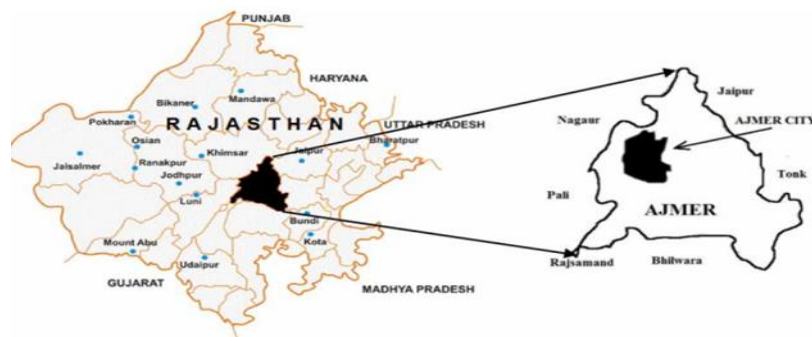
recommendations to enhance financial sustainability for climate resilience in informal settlements.

5. **Impact on Gender-Centric Resilience Planning:** Investigate the project's impact on advancing gender-focused climate resilience in Ajmer, and its contributions to the broader goals of the Adaptation Research Alliance (ARA).

### 1.3 Study Location: Ajmer

Ajmer, situated in central Rajasthan, is a city of significant historical, religious, and administrative importance. As an educational hub and a key stop on the Delhi-Mumbai industrial corridor, Ajmer plays a crucial role in the region's development. The city's population, recorded at 542,580 in the 2011 census, was projected to reach 620,155 by 2020, indicating substantial growth. Ajmer's urban landscape is characterized by a low overall density with a highly dense inner core, 80 municipal wards under the Ajmer Municipal Corporation (AMC), 67 notified slums primarily in the city center, and 43 non-notified and 2 resettled informal settlements. The city's selection for both the SMART City Mission and AMRUT (Atal Mission for Rejuvenation and Urban Transformation) programs highlights its potential for urban development and resilience-building.

**Figure 1: Map of Ajmer District**



Ajmer faces critical water and sanitation issues. The municipal water supply is inconsistent, available only on alternate days, and there is a lack of adequate water storage facilities in informal settlements. Prolonged repair times for water pipelines, lasting up to 5-6 days, often lead to reliance on hand pumps and neighboring communities during water shortages. Water quality concerns persist, with traditional purification methods like adding alum being common, irregular chemical treatment of water tanks by government authorities, and limited awareness about the health impacts of using contaminated water. Sanitation

problems are prevalent, with infrequent and superficial cleaning services in informal settlements, severe waterlogging issues during the rainy season, mosquito infestations leading to increased health risks, and overcrowding exacerbating these challenges. Health vulnerabilities are heightened by the increased prevalence of diseases like malaria due to stagnant water and poor drainage, and worsening health conditions attributed to poor sanitation and environmental degradation.

Urban resilience challenges in Ajmer include vulnerabilities in informal settlements, climate change adaptation needs, infrastructure gaps, socio-economic challenges, governance and implementation issues, and community resilience concerns. Informal settlements are densely populated, with some wards reaching up to 10,000 persons per square km, and many lack proper infrastructure. Newly formed slums in outer areas due to recent migration strain resources. Climate change adaptation is essential, with increasing water scarcity necessitating a shift from traditional wells to piped systems, improved drainage systems to combat waterlogging, and sustainable environmental practices to mitigate climate change impacts. Infrastructure gaps are evident in inadequate water storage and distribution systems in informal settlements, insufficient sanitation infrastructure, and the need for improved solid waste management. Socio-economic challenges include disparities in access to basic services between formal and informal settlements, economic constraints limiting residents' ability to invest in water storage or purification, and potential social tensions due to uneven development and resource allocation. Effective implementation of SMART City and AMRUT initiatives requires better coordination between AMC, the Ajmer Development Authority, and other stakeholders, along with more inclusive urban planning that addresses the needs of informal settlements. Community resilience can be bolstered by reducing reliance on traditional methods for water management and health practices, enhancing community awareness and participation in resilience-building efforts, and leveraging local knowledge while introducing modern resilience strategies.

#### **1.4 Stakeholder Engagement**

Effective stakeholder engagement is crucial for the success of urban resilience initiatives in Ajmer. This section outlines the roles and interactions of key stakeholders involved in the project, including the Ajmer Municipal Corporation (AMC), Ajmer Development Authority (ADA), community organizations (SICs), Self-Help Groups (SHGs), and other community-based organizations/associations.

##### **Ajmer Municipal Corporation (AMC)**

The AMC plays a central role in urban governance and infrastructure development in Ajmer. Despite its pivotal position, the AMC has faced challenges in addressing the specific needs of informal settlements. Key points from the engagement include:

- **Infrastructure and Services:** The AMC's efforts in providing basic services like water supply and sanitation have been inconsistent. The field data indicates that many areas still lack adequate infrastructure, with significant gaps in waste management and drainage systems.
- **Community Interaction:** Meetings with AMC officials revealed a recognition of the need for more inclusive planning processes. However, there is a gap in effectively involving community members, particularly women and marginalized groups, in decision-making processes.

### **Ajmer Development Authority (ADA)**

The ADA is responsible for urban planning and development in Ajmer. Its engagement with the community has been critical in shaping the city's infrastructure and development strategies. Observations from the field data include:

- **Planning and Implementation:** ADA's plans often overlook the unique challenges faced by informal settlements. The ADA has shown interest in incorporating community feedback but lacks the mechanisms to ensure effective participation from all segments of society.
- **Support for Resilience Projects:** There is a need for ADA to strengthen its support for resilience projects that focus on sustainable development and climate adaptation. The field data suggests that ADA's current projects are not always aligned with the specific needs of vulnerable communities.

### **Community Organizations (SICs)**

Local community organizations, including the Social Inclusion Committees (SICs), play a vital role in bridging the gap between the community and formal institutions. Key insights include:

- **Advocacy and Support:** SICs have been instrumental in advocating for the rights and needs of marginalized communities. They have successfully mobilized resources and provided critical support for community-led initiatives.
- **Challenges and Opportunities:** Despite their efforts, SICs face challenges such as limited resources and capacity constraints. Strengthening their capacity and enhancing their collaboration with other stakeholders is crucial for improving their effectiveness.

## Self-Help Groups (SHGs)

SHGs are pivotal in empowering women and enhancing community resilience. The field data highlights their significant contributions and challenges:

- **Economic Empowerment:** SHGs like Maa Durga, Prerna, and Priya have empowered women through microfinance, skill development, and capacity-building programs. Members have reported increased confidence and financial independence.
- **Role in Community Development:** SHGs have also played a crucial role in community mobilization, health awareness, and advocacy for better services. However, they require more support in terms of financial resources, training, and market access to sustain and expand their activities.



Image Source: *Field Data, 2024*

## Other Community-Based Organizations/Associations

Other local organizations and associations, including NGOs and local collectives, contribute significantly to community development and resilience-building. The engagement details are as follows:

- **NGO Support:** Organizations like CFAR have provided vital support through training programs and livelihood development initiatives. Their interventions have helped women gain skills in various trades, enhancing their economic opportunities.
- **Collaborative Efforts:** These organizations have also facilitated crucial dialogue between the community and governmental bodies, promoting more inclusive and participatory planning. The field data indicates a need for stronger collaboration and resource sharing among these organizations to amplify their impact.



## 2. Methodology

### 2.1. Research Design

The research was conducted in two informal settlements of Ajmer, Rajasthan: Ward 2 (Berwa Basti) and Ward 48 (Gujjar ki Dharti). These wards were chosen based on the following criteria:

- Availability and functioning of Self-Help Groups (SHGs)
- Approachability of ward councillors
- Prevalent issues of water and sanitation

The research used a participatory approach to involve diverse community members, such as men, women, young girls, and boys. This method was selected to ensure that the viewpoints of all demographic groups were considered in the study, resulting in a more thorough understanding of the issues and possible solutions. Therefore, purposeful sampling was used to ensure representation from various demographic groups within the settlements.

The research involved continuous engagement with key stakeholders, including:

Self-Help Groups (SHGs) to leverage their organizational structure and community influence, Ward Councillors to understand the political and administrative aspects of service delivery and challenges they face in operating, Community-Based Organizations (CBOs) and Civil Society Organizations (CSOs) to incorporate broader community perspectives and mobilize support for interventions. In-depth semi-structured interviews were conducted with stakeholders to gain an institutional perspective on climate change impact on water and sanitation in Ajmer. This methodological approach facilitated a more nuanced and comprehensive understanding of the issues and potential solutions within the community.

## **2.2 Participatory Research Methods:**

The following participatory methods were utilized:

### **1. Transect Walks**

#### ***Purpose***

A transect walk is a participatory tool that involves walking through a community or area to observe and gather information about its environment and social conditions. It is a valuable method for understanding local perspectives and identifying issues or opportunities for improvement. Transect walks help to explore environmental and social resources by observing and documenting:

- Land use patterns
- Water resources and sanitation facilities
- Infrastructure (roads, buildings, etc.)
- Vegetation
- Social dynamics
- Demography and migration patterns
- Local knowledge and perspectives.

The main goal of utilizing transect walk in our study was to:

- Provide an overview of the area.
- Gain a firsthand understanding of the physical and environmental conditions of the study areas.
- Facilitate the exchange of knowledge between researchers and the locals.
- Collect information on community assets, goods, services, infrastructure, and the natural environment, and their interactions over space.
- Adding depth and perspective to research when used in conjunction with other tools.

For example, during our transect walk with community members, we gained insights into water and sanitation issues, resource distribution and water networks.



Image Source: Field Data, 2024

### ***Process:***

Community members, along with researchers, walked through the settlements to identify key landmarks, observe living conditions, and note areas with significant water and sanitation issues. Upon returning back they sat in groups and made a physical map of the community focusing on lanes and their sources and network of water.

## **2. Historical Mapping**

### ***Purpose***

The historical Mapping aims to document the evolution of the community, emphasizing how environmental and socio-economic factors have shaped their lives. It is a visual representation of events in chronological order, used to organize and understand the sequence of significant happenings from the earliest recorded time to the present day. This tool helps document political, cultural, social, technological, and scientific developments, focusing particularly on changes in water and sanitation infrastructure within the settlements.

For our study the historical mapping activity was used to study:

- Political, cultural, social developments.
- Environmental and institutional changes.

- Changes in housing, infrastructure, livelihood patterns, health issues, and water sources.



Image Source: Field Data, 2024

### ***Process***

Participants sat in a circle with chart papers in the middle. They were asked questions related to how the basti was formed? Who were the first settlers? Which was the first house constructed and so on. After these preliminary questions, we progressed to questions related to change in the weather pattern, its impact, change in the source of water and its impact on health and daily chores. Their discussion revolved around topics related to:

- Environmental changes
- Institutional changes
- Changes in housing and infrastructure
- Livelihood patterns
- Changes in health issues
- Changes in water sources

### **3. Venn Diagrams**

#### ***Purpose***

Venn diagrams are used to identify and understand the relationships and influence of various institutions and stakeholders within the community. They provide a visual depiction

of key institutions, organizations, and individuals, showing their significance, levels of communication, and their relationship with the local community or other groups.<sup>1</sup>

In our study Venn diagrams helped in:

- Visualizing the roles and influences of different groups and organizations.
- Understanding the significance and level of communication (accessibility) between stakeholders and the community members
- Identifying key institutions and their relationships within the community.



Image Source: Field Data, 2024

### **Process**

Community members were asked to first think about all the stakeholders that are related to water and sanitation issues in their community. After identification, they were asked to write the names of stakeholders they think are the most important on the big circles, stakeholders of medium importance were to be written on the medium-sized circles and stakeholders of minimum importance were asked to be written on the smaller circles. Next “Water” was written at the center of the chart paper and community members were asked to arrange the stakeholders' name based on how accessible they are. Stakeholders who are easily accessible/approachable were kept near the word “Water” and those who were the least accessible were placed far from the word “Water”. The activity vividly portrayed the community's recognition of the significance of different stakeholders and their respective roles in the lives of people. This approach facilitates a deeper understanding of the

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<sup>1</sup> Narayanasamy, Participatory Rural Appraisal- Principles, Methods, Applications

dynamics of community interactions and the impact of various stakeholders on the local community.

#### 4. Focus Group Discussions (FGDs)

##### **Purpose:**

Focused Group Discussions were carried out with men, women, SHG members, CBOs and youth of the Community. The aim of FGDs was to gather detailed qualitative data on the experiences, challenges, and needs related to water and sanitation. Specifically, with the SHGs we wanted to understand the process of their formation, their role in voicing the issues of the community, their involvement in training and activities as per the GESI guidelines in AMRUT.



Image Source: Field Data, 2024

##### **Process:**

Separate FGDs were conducted with men, women, young girls, and boys to ensure that gender-specific and age-specific issues were captured.

#### 2.3 Data Collection and Analysis

Data collected through the participatory methods were documented and analysed to identify common themes, issues, and potential interventions. The analysis focused on:

- The current state of water and sanitation infrastructure
- Historical factors affecting these services
- The influence of different stakeholders and institutions

- Gender-specific and age-specific challenges and needs

The findings from the participatory research are compiled into comprehensive reports, which will be shared with the community members, SHGs, ward councillors, and other stakeholders. Workshops and meetings will be conducted to discuss the findings and collaboratively develop action plans to address the identified issues.

This methodology ensured a holistic understanding of the water and sanitation challenges in the informal settlements of Ajmer and fostered community-driven solutions to enhance urban resilience..

#### **2.4 Ethical Considerations:**

- Obtained informed consent from all participants
- Ensured confidentiality and anonymity of participants
- Respected local customs and cultural sensitivities

#### **2.5 Limitations:**

Potential bias due to the selection of wards based on functioning SHGs and approachable councilors

### **3. Context Analysis**

The financial situation of the Ajmer Development Authority (ADA) has improved over the years, (see Annexure) but the resources with the Ajmer Municipal Corporation (AMC) have not grown to the same extent. The major part of AMC's receipts comes from Central and State Finance Commissions, as well as various central government schemes like SMART City, NULM, AMRUT, and Swachh Bharat Mission (SBM).

The informal settlements in Ajmer lack basic amenities such as water, functional public toilets, and have deplorable living conditions. Residents of these settlements live in kuccha houses, which are prone to flooding and waterlogging during the rainy season, leading to health issues. The lack of access to essential services, such as proper sanitation, water supply, and waste management, further exacerbates the challenges faced by these communities.

While some of the notified informal settlements have a relatively better standard of living, with residents owning amenities like coolers and vehicles, water remains a common problem across all settlements. The disparities within the informal settlements of Ajmer highlight the need for more inclusive and equitable development.

The central and state government schemes, such as SMART Cities Mission, AMRUT 2.0, and Swachh Bharat Mission Urban 2.0, aim to address the challenges faced by urban areas,

including water security, sanitation, and waste management. However, the effective implementation of these schemes and the integration of gender perspectives are crucial to ensure the well-being of all residents, especially the most vulnerable communities.

### 3.1 Historical Background

#### Major Historical Events and Their Impact

**Founding and Early History:** Ajmer was founded in the 7th century by the Chauhan dynasty. The city served as a strategic location due to its proximity to trade routes and its fortified position, leading to its growth as a center of commerce and culture. (Moini, S. L. H.,1987)

**Mughal Influence:** In the 12th century, Ajmer became a significant site during the Mughal Empire, particularly under the reign of Emperor Akbar, who established it as a key administrative center. The city is home to the famous Ajmer Sharif Dargah, a shrine dedicated to the Sufi saint Khwaja Moinuddin Chishti, which attracts millions of pilgrims annually, enhancing the city's religious and cultural significance. (Moini, S. L. H.,1987)

**British Colonial Era:** During the British colonial period, Ajmer was incorporated into the British Raj as a part of the Ajmer-Merwara region. This period saw infrastructural developments, including railways and roads, which facilitated trade and movement, but also led to the exploitation of local resources. (Sarda,1941)

**Post-Independence Developments:** After India gained independence in 1947, Ajmer became a part of Rajasthan. The post-independence era has been marked by efforts to modernize the city, improve infrastructure, and address socio-economic challenges. (Sethi,2015)

Ajmer's history is rich and varied, dating back to the early medieval period. The city was once a significant center of power and culture. During the 12th to 14th centuries, Ajmer was noted for its lush greenery and pleasant climate, often compared to Kashmir. This period saw the region as a grazing ground for cattle from Mewar, supported by the verdant landscape. Over the centuries, significant historical events have shaped the development of Ajmer, including its status as a pilgrimage site and its strategic importance during various dynastic rules.

The transformation of Ajmer began notably in the 19th century with the arrival of the railway. Around 1870, the settlement started with railway workers building mud houses due to the lack of accommodation, marking the beginning of Ajmer's urbanization. The 1975 flood was a pivotal event, leading to the construction of permanent houses and the development of infrastructure such as toilets, which significantly changed the living conditions of the residents

## **Development Trajectory of Ajmer**

The late 20th and early 21st centuries have seen rapid urbanization in Ajmer, with the city expanding significantly through the establishment of new residential areas and commercial zones. However, this growth has also led to challenges, including inadequate water supply, poor sanitation, and environmental degradation. The city's development trajectory has been marred by persistent water scarcity and sanitation challenges, particularly in informal settlements. Residents often rely on irregular water supplies from sources like Faysagar Lake, raising concerns about water quality and health impacts, which has led to community activism and demands for better services. Ajmer also faces significant challenges related to climate change, including erratic rainfall patterns that impact agriculture and biodiversity. Urban expansion has led to the degradation of natural habitats and increased flooding, prompting calls for sustainable urban planning and climate resilience strategies. Civil society organizations have played a crucial role in advocating for the rights of marginalized communities, addressing water and sanitation issues, and promoting climate awareness. Their involvement has been vital in bridging the gap between the government and local communities, although challenges remain in terms of bureaucratic support and effective collaboration.

Ajmer's development trajectory has been significantly influenced by its geographical location and historical events. As literature and field data revealed Initially, the area( Ward no 48) was primarily agricultural land, part of a river ecosystem used by the Gujjar community for farming. The introduction of a water pipeline around 1960 helped mitigate severe water shortages that had been a persistent issue. Urbanization accelerated in the late 20th and early 21st centuries, particularly under initiatives like the SMART City project, aimed at modernizing the city's infrastructure. However, rapid urbanization has led to various challenges, including housing issues and environmental degradation

### **3.2 Socio-economic Profile**

Ajmer, a city in Rajasthan, India, presents a complex socio-economic profile shaped by its historical context, urban development, and current challenges. The city's demographic composition, economic activities, and social dynamics reflect significant disparities, particularly between different zones.

Ajmer has a diverse population, with a significant number of residents living in informal settlements, particularly in the South zone, which is characterized by slum areas. The North zone, in contrast, is home to more affluent communities, including retired government officials. This demographic divide influences access to resources and services, particularly in water supply and sanitation.

## Social dynamics

Traditional gender norms persist in Ajmer, especially in informal settlements, where women often need permission from male family members to make decisions. This limitation on their agency restricts their participation in community matters. Despite these challenges, women are actively involved in advocating for better services and addressing community issues. Ajmer's caste composition includes significant populations of Koli, Bairwa, Harijan, and Muslim communities. These groups experience varying degrees of socio-economic challenges, often compounded by traditional social hierarchies. Civil society organizations, such as the Center for Advocacy and Research (CFAR), play a crucial role in mobilizing community efforts to address socio-economic challenges. They facilitate grievance redressal mechanisms and promote awareness about water and sanitation issues, although collaboration with municipal authorities remains limited. Additionally, there is a significant gap in awareness regarding climate change and its impacts on local livelihoods. Erratic rainfall patterns affect agricultural productivity, and urbanization has led to environmental degradation. Community members express a need for education on climate resilience strategies to better adapt to these changes.



Image Source: Field Data,2024

## Economic dynamics

The community in Ward no 2 & 48 of Ajmer predominantly engages in informal economic activities such as bidi making, flower garland crafting, and daily wage labor. These economic activities are largely unstable, reflecting high economic vulnerability. The majority of

households have low and irregular incomes, which impacts their ability to invest in housing improvements and sanitation.



Image source: Field Data,2024

The community faces limited access to stable employment and financial resources, leading to a dependence on external support and government schemes for basic amenities. The primary objective of the self-help groups (SHGs) in the area is to achieve economic empowerment and create livelihood opportunities, as the traditional occupation of bidi making does not provide sufficient income.

Members of the SHGs earn only ₹120 per day from bidi making, which is neither fixed nor guaranteed, highlighting the need for alternative sources of income. The SHGs have made significant strides in financial inclusion by offering loans at minimal interest rates, and some members have developed leadership skills through increased awareness, knowledge, and networking.

However, the SHGs continue to face challenges, including economic instability due to low and inconsistent income from bidi making and difficulties in loan repayment among members. They also receive minimal support from the municipal corporation and rely heavily on NGOs like CFAR and Jan Shikshan Sansthan for assistance.

The community's economic activities and living conditions are closely tied to the environmental changes in the area, such as reduced rainfall, increased temperatures, and

water scarcity. These environmental factors have had a significant impact on the community's livelihood sources and overall well-being.

### **3.3 Governance Structure**

The constitutional mandate is evident in the 74th Constitutional Amendment Act of 1992 known as the Nagarpalika Act which provides for “a framework and regulation of the process of assignment of powers and functions to local government including developing and adopting systems and procedures to risk reduction and reducing and strengthening resilience. Weak government capacities, and conventional forms of governance continue to fail, thus, undermining urban resilience. Nevertheless, the state and other actors, including the civil society and Community based organisations, academia, other departments like PHED and citizens, do not remain passive but explore alternative forms of governance that shape and reshape relations.

Ajmer, like many urban centres, faces the daunting challenge of enhancing its resilience to the multifaceted impacts of climate change. With rising temperatures, erratic precipitation patterns, and the threat of extreme weather events, the city must proactively adapt and fortify its systems and infrastructure. Recognizing the urgency of this task, various stakeholders have come together to contribute their respective expertise and resources toward climate-resilient city planning in Ajmer.

The Ajmer Municipal Corporation (AMC) plays a pivotal role in implementing climate change mitigation measures, such as tree plantation drives, and developing policies and regulations related to urban planning, waste management, and environmental protection. The AMC is also responsible for ensuring the provision of basic civic amenities and services in a climate-resilient manner. Complementing the AMC's efforts, the Ajmer Development Authority (ADA) focuses on urban planning and development, including land-use zoning and infrastructure development. The ADA formulates and implements strategies for sustainable urban growth and climate-resilient development, collaborating with the AMC and other stakeholders for integrated urban planning.

Civil Society Organizations (CSOs) and Community-Based Organizations (CBOs) contribute by raising awareness about climate change impacts and resilience strategies, representing community interests, and facilitating public participation in decision-making processes. They also play a crucial role in implementing community-based adaptation and resilience-building initiatives. The Community/Slum Improvement Committee (SIC) serves as a platform for identifying and communicating the needs and priorities of informal settlement residents, facilitating community engagement in slum upgrading and resilience-building programs, and monitoring and providing feedback on the implementation of resilience initiatives.

The Public Health Engineering Department (PHED) is responsible for planning, designing, and maintaining water supply, sanitation, and drainage infrastructure, ensuring climate-resilient and sustainable management of water resources. It collaborates with other agencies for integrated water resource management, which is crucial for enhancing the city's overall resilience.

Finally, academia contributes by conducting research and assessments on climate change impacts, vulnerabilities, and adaptation strategies, providing technical expertise and knowledge support for climate-resilient planning, and facilitating capacity-building programs and knowledge exchange among stakeholders. Effective collaboration, coordination, and a clear delineation of roles and responsibilities among these stakeholders are crucial for developing and implementing comprehensive climate-resilient strategies in Ajmer.

The above-described governance structure in Ajmer involves multiple entities, including the Ajmer Development Authority (ADA) and the Ajmer Municipal Corporation (AMC). However, there are significant issues related to the coordination and effectiveness of these bodies. For instance, some slums are under the jurisdiction of the ADA and others under the AMC, leading to prolonged disputes and lack of accountability. This fragmentation has resulted in inadequate services and infrastructure development, particularly in the southern zones where the majority of slums are located.

Additionally, there is a lack of effective communication between the residents and local government officials. Residents have reported difficulties in reaching out to the Municipal Corporation and a general sense of neglect in addressing their issues. The governance challenges are compounded by political dynamics that prioritize other regions over Ajmer, leading to uneven resource distribution and development efforts

### **3.4 Environmental Conditions**

Ajmer has undergone significant environmental changes that have profoundly impacted the community, particularly in Ward 2 & 48. The area faces severe water scarcity, with residents receiving water only once every 5-6 days, often at very low pressure. This scarcity has created numerous problems, especially for women who manage household water needs. The community has also experienced a deterioration in water quality, as the water from Faysagar Lake has a bitter taste and light rains lead to flooding and messy conditions. Stagnant water from flooding fosters mosquito breeding, posing health risks. Due to the water scarcity, residents rely on distant hand pumps or borrow water from neighbors, as government-installed taps fail to provide sufficient water. Over time, the water supply has diminished, now arriving every 3-4 days, reducing water consumption and potentially impacting health in the long term. The community's limited storage capacity prevents them

from storing enough water when it is available, and there is a lack of awareness about the severe health impacts of using dirty water and the necessary daily water consumption.



Image Source: Field Data, 2024

Historical data indicates that Ajmer was much greener in the past, with a more stable climate. Today's environmental condition has deteriorated significantly over time due to deforestation, urbanization, and environmental degradation. Extensive deforestation and rapid urbanization have led to a loss of greenery and natural resources, resulting in decreased rainfall, increased temperatures, and a deteriorated local climate. Environmental degradation has led to a loss of farmland and parts of a river ecosystem, altering the local environment and increasing reliance on modern infrastructure. Poor sanitation, overcrowding, and environmental degradation have also contributed to increased health issues, particularly mosquito-borne diseases like malaria. Additionally, climate change has triggered biodiversity loss, with the disappearance of species like the state bird Kodiamond and the declining population of the Ajmer mascot Kharmor due to changing migratory patterns.



Image Source: Field Data, 2024

The environmental challenges in Ajmer are also deeply intertwined with socio-economic issues, impacting public health and the quality of life for residents. Inadequate water supply and poor sanitation are major concerns, with irregular water supply in informal settlements leading to severe scarcity. The water sourced from Faysagar Lake is often bitter and unhygienic, causing health issues such as tonsillitis and gastrointestinal problems. This situation forces families to rely on expensive water tankers, placing a significant financial burden on households. Additionally, poor waste management leads to garbage accumulation, unsanitary conditions, and health hazards. Flooding during light rains due to poor urban planning creates breeding grounds for mosquitoes and increases the risk of waterborne diseases. Climate change has resulted in erratic weather patterns, affecting agriculture and local biodiversity, and contributing to the decline of species like the Kodiamond and Kharmor. Despite these pressing issues, there is a notable lack of awareness about climate change among the community and local government officials, underscoring the need for climate resilience strategies and better community education on environmental impacts and mitigation measures.

## **4. Findings and Discussion**

### **4.1 Urban Infrastructure and Services**

The analysis of field data from Ajmer reveals critical insights into the state of urban infrastructure and services in Wards 2 (Gujjar ki Dharti) and 48 (Bairwa ki Basti). The findings underscore the pressing issues in water supply, sanitation, waste management, housing

conditions, and public amenities, highlighting both the challenges faced by the residents and the coping mechanisms they employ.

#### **4.1.1 Water Supply and Management**

The water supply in Ajmer is notably inconsistent and inadequate. Residents of Wards 2 and 48 report receiving water only once every 5-6 days, with very low pressure. This scarcity severely impacts daily life, particularly for women who are primarily responsible for managing household water needs. One resident stated, "We have to wake up early in the morning to fill our containers when water comes, but sometimes the pressure is so low that it takes hours just to get a few buckets filled."

The quality of water is also a major concern. The water sourced from Faysagar Lake is often bitter, making it unfit for consumption without additional treatment. During light rains, the water becomes muddy and leads to flooding, creating unsanitary conditions that foster mosquito breeding and increase the risk of diseases like malaria. A local woman shared, "The water we get tastes bad, and during rains, it floods our homes. We have to rely on distant hand pumps or borrow from neighbors."

#### **4.1.2 Sanitation Facilities**

Sanitation facilities in the areas surveyed are inadequate and poorly maintained. Many households lack access to proper toilets, relying instead on shared or public facilities that are often unhygienic and overcrowded. The lack of sanitation infrastructure contributes to health problems and environmental degradation. One community member noted, "The public toilets are filthy and not enough for all of us. Many people still go out in the open, which is not safe or clean."



Image Source: Field Data, 2024

Efforts by community-based organizations (CBOs) and NGOs have been instrumental in raising awareness about the importance of sanitation and advocating for better facilities. However, the support from municipal authorities remains insufficient to address the scale

#### **4.1.3 Waste Management**

Waste management in Ajmer is a critical issue, with inadequate systems for collection and disposal. Residents often dump garbage in open areas or burn it, leading to environmental pollution and health hazards. One resident expressed frustration, saying, "There is no regular garbage collection. We have to throw our waste in the empty plots, which attracts flies and rats."

The absence of a systematic waste management plan exacerbates the problem, with clogged drains and stagnant water further contributing to the spread of diseases. Community efforts to clean up the areas are sporadic and lack the necessary support from municipal services.

#### **4.1.4 Housing Conditions**

Housing conditions in Wards 2 and 48 are generally poor, with many families living in temporary or semi-permanent structures. The lack of durable housing exposes residents to harsh weather conditions and increases vulnerability to natural disasters. After the 1975 flood, some improvements were made, but many homes remain inadequate. A local inhabitant described, "Our house is made of mud and tin. It gets too hot in the summer and leaks during the rains. We can't afford to build a better house."



Image Source: Field Data,2024

The economic instability of the community, with many engaged in low-income informal jobs such as bidi making and daily wage labor, limits their ability to invest in housing

improvements. Financial support and affordable housing schemes are urgently needed to improve living conditions.

#### **4.1.5 Public Spaces and Amenities**

Public spaces and amenities in Ajmer are insufficient and poorly maintained. There are few recreational areas, parks, or community centers, limiting opportunities for social interaction and community activities. The available public spaces are often neglected, with inadequate facilities and poor upkeep. A resident lamented, "There is no place for our children to play safely. The parks are not maintained, and there is garbage everywhere."

The lack of public amenities affects the quality of life and social cohesion in the community. Efforts by local NGOs to create and maintain public spaces are ongoing, but more comprehensive support from municipal authorities is needed to ensure these spaces are safe and accessible.

The field data highlight significant challenges in urban infrastructure and service delivery in Ajmer, particularly in Wards 2(Bairwa Basti) and 48 (Gujjar ki Dharti). The issues of water supply, sanitation, waste management, housing, and public amenities are deeply intertwined with the socio-economic vulnerabilities of the community. Addressing these challenges requires a coordinated effort from municipal authorities, community-based organizations, and NGOs, with a focus on sustainable and inclusive development. The narratives from residents underscore the urgency of these issues and the need for immediate and effective interventions to improve the living conditions in Ajmer.

#### **4.2 Social Dynamics and Resource Distribution**

The examination of social dynamics and resource distribution in Ajmer, particularly in Wards 2 (Bairwa ki Basti) and 48 (Gujjar ki Dharti), reveals complex interrelations between gender equity, social inclusion, power dynamics, and access to essential resources and services. The field data highlight significant disparities and the ways in which different groups navigate these challenges.

##### **4.2.1 Gender Equity and Social Inclusion (GESI) Analysis**

Gender equity and social inclusion (GESI) are critical aspects of the socio-economic landscape in Ajmer. Traditional gender norms significantly influence the roles and responsibilities within households and the broader community. Women often bear the brunt of water scarcity and poor sanitation, as they are primarily responsible for managing these resources. One woman shared, "**Fetching water is my daily struggle. I have to walk long distances and wait for hours at the hand pump. It takes up most of my day.**"



Image Source: Field Data, 2024

In terms of social inclusion, marginalized communities, including the Koli , Bairwa, Harijan, and Muslim populations, face significant socio-economic challenges. These groups often have limited access to education, healthcare, and economic opportunities. A member of the Harijan community noted, **"We are always the last to receive any help or resources. Our children struggle to stay in school because we can't afford the fees or uniforms."**

Civil society organizations like CFAR (Centre for Advocacy and Research) play a pivotal role in promoting gender equity and social inclusion. These organizations facilitate community mobilization, raise awareness about rights and services, and advocate for the needs of marginalized groups. However, their efforts are often hampered by limited resources and insufficient support from government authorities.

#### **4.2.2 Power Dynamics and Decision-making Processes**

Power dynamics in Ward no 2 & 48 are shaped by traditional hierarchies and socio-economic status. Decision-making processes at the household and community levels are predominantly male dominated, with women having limited say in important matters. This gender disparity is evident in the management of household resources and participation in community governance. One woman recounted, **"Even when I have good ideas, I am often not listened to because I am a woman. The men in our community make all the decisions."** (*agar humare paas achhe idea bhi hote hai to wo nahi sunte Qki main aurat hoon, humaare yahan saare decision mard hi lete hain*)



Image Source: Field Data, 2024

In the broader community context, power dynamics are influenced by caste and economic status. Higher-caste and economically better-off families tend to have more influence in local governance and access to resources. This often results in the marginalization of lower-caste groups and those engaged in informal labor. A community leader from the Koli caste mentioned, **"We are seldom invited to participate in the decision-making meetings. Our voices are not heard, and our needs are overlooked."** (हमें शायद ही कभी निर्णय लेने की बैठकों में भाग लेने के लिए आमंत्रित किया जाता है। हमारी आवाज़ें नहीं सुनी जातीं, और हमारी आवश्यकताओं की अनदेखी की जाती है।)

Efforts to democratize decision-making processes and ensure inclusive participation are critical. Community-based organizations and NGOs are working to empower marginalized groups by providing leadership training and creating platforms for their voices to be heard. Despite these efforts, significant barriers remain, and more robust policies and inclusive practices are needed to address these power imbalances.

#### **4.2.3 Access to Resources and Services**

Access to essential resources and services, such as water, sanitation, education, and healthcare, is highly uneven across different social groups in Ajmer. Marginalized communities face numerous obstacles, including geographic isolation, economic constraints, and social discrimination, which limit their access to these vital resources.

Water scarcity is a significant issue, with many residents relying on distant or unreliable sources. A resident from Ward 48 described the situation: "We only get water once every few days, and it is never enough. The rich families have private wells and can buy water tankers, but we have to make do with what little we get."

Sanitation facilities are similarly inadequate, with many households lacking access to proper toilets and waste disposal systems. This issue disproportionately affects women and children, who are more vulnerable to the health risks associated with poor sanitation. A mother of three highlighted, "We don't have a toilet in our home. It's dangerous to go out at night, and my children often fall sick because of the dirty surroundings."

Access to education and healthcare is also a significant challenge for marginalized groups. Schools in informal settlements are often under-resourced, and many children drop out to support their families financially. Healthcare facilities are scarce, and those available are often of poor quality. One father lamented, "My son had to leave school to help me with work. We can't afford the fees, and the nearest hospital is miles away and too expensive."

NGOs and community organizations are instrumental in bringing these gaps by providing educational support, healthcare services, and advocating for improved infrastructure. However, sustainable solutions require concerted efforts from government authorities to ensure equitable distribution of resources and services.

The social dynamics and resource distribution in Ajmer are characterized by significant disparities rooted in gender, caste, and economic status. The field data underscores the urgent need for inclusive policies and practices that address these inequities. Efforts to promote gender equity, democratize decision-making processes, and ensure equitable access to resources and services are critical for improving the quality of life for all residents. The narratives from community members vividly illustrate the challenges they face and highlight the resilience and determination with which they navigate these adversities. Addressing these issues holistically requires a coordinated effort from government bodies, civil society organizations, and the community itself.

## **4.3 Community Resilience**

### **4.3.1 Vulnerability Assessment**

The research findings reveal a complex web of water-related challenges faced by communities in Ajmer, particularly in disadvantaged areas. Water scarcity and quality issues are at the forefront, with residents receiving water only once every 3-6 days, often of poor quality and insufficient pressure. Many households rely on traditional purification methods like alum due to the lack of modern filtration systems, exposing them to health

risks from contaminated water containing visible parasites and bacteria. The shift from well water to piped systems has not resolved these issues, with many wells now unused and algae-infested, further limiting water sources.

These water problems disproportionately affect women and girls, who bear the primary responsibility for water collection and management. The scarcity impacts daily life significantly, causing delays in essential household chores and forcing residents to reduce their daily water intake to as little as 4-5 glasses per day. This low consumption potentially leads to dehydration and various health issues. The situation worsens during monsoons when water-logging forces school closures and restricts mobility, highlighting the inadequate drainage infrastructure.

The health consequences of these water issues are severe and wide-ranging. There's an increased incidence of waterborne diseases such as jaundice, cholera, and diarrhea, as well as vector-borne diseases like dengue and malaria during monsoons. Kidney stones are becoming more common, possibly due to low water consumption. Residents also report concerns about weight gain and frequent loose motions, especially in children. Moreover, there's a rise in anemia and malnutrition, particularly affecting girls' menstrual health. These health issues are compounded by the lack of regular health camps or awareness programs in the community.

Infrastructure and governance issues exacerbate these problems. Inadequate drainage systems lead to frequent flooding, while sewage treatment plants function poorly, contributing to water pollution. Improper waste management results in garbage clogging drains, further complicating the situation. Local authorities demonstrate a limited understanding of climate change impacts, and there's insufficient response from municipal corporations to community complaints. The bureaucratic maze often leaves residents feeling unheard and helpless.

Climate change is intensifying these challenges. Disrupted rain cycles are affecting small-scale farming, while increased heat is particularly problematic in densely populated areas with compact housing. More frequent flooding events, even with light rainfall, are becoming the norm, putting additional strain on the already struggling infrastructure.

Socio-economic factors play a significant role in this crisis. Many residents face the economic burden of purchasing water from tankers, adding financial stress to already marginalized communities. The persistence of patriarchal norms limits women's decision-making power, even in matters directly affecting their daily lives like water management. There are stark disparities between different zones of the city, with slum areas facing more severe issues compared to more affluent neighborhoods.

Despite these challenges, communities are developing adaptive strategies. Self-help groups and community organizations are forming to address these issues collectively. Informal water-sharing networks among neighbors have emerged as a coping mechanism.

There are ongoing efforts to raise awareness and lodge complaints, though these are often met with limited success due to bureaucratic hurdles and lack of responsiveness from authorities.

The privatization of utilities, such as electricity supply now managed by TATA, has resulted in increased rates and more frequent billing, further impacting the financial stability of households. This, combined with the economic burden of acquiring water from tankers and the frustration of receiving water bills for water they do not receive, adds to the community's distress.

The research also highlights the need for improved urban planning. Issues such as roads being built higher than house levels, leading to flooding during rains, and the lack of space for tree plantation in narrow streets, demonstrate how poor planning exacerbates climate-related challenges.

In conclusion, these findings underscore the urgent need for a multifaceted approach to address the water and sanitation crisis in Ajmer. This approach should encompass infrastructure improvements, better governance, climate change mitigation strategies, and community-inclusive solutions. There's a clear need for increased awareness about water conservation, health impacts of water quality, and climate change among both residents and local authorities. Moreover, addressing gender disparities and providing targeted support to marginalized communities should be integral to any intervention strategy. Only through such a comprehensive approach can the community hope to build resilience against current and future water-related challenges.

#### **4.3.2 Coping Strategies**

Field data reveals that in Berwa Basti, the SHG women have developed various approaches to address environmental challenges that are becoming more prevalent due to changing climatic patterns. When faced with potential flooding, a con issue exacerbated by irregular rainfall, SHG members and ASHA workers work together to clear clogged drains. They employ practical solutions like using oil to dislodge blockages in the drains and leverage official channels by reporting the issue to 181 CM helpline number for further assistance.

Their efforts extend beyond immediate water-logging prevention these women also advocate for community rights and have secured water campers during a water crisis. They have also taken on the task of resolving electricity problems through the same 181 helpline, understanding that power is crucial for adapting to extreme weather conditions, particularly during heatwaves.

The SHG members share that the community has also noticed improvements in water quality over recent months, which they attribute to their persistent reporting of issues. The coordinator, Mamta plays a crucial role in information dissemination. She shares insights

on coping with extreme heat based on training received from CFAR (Centre for Advocacy and Research).

Additionally, she educates her group about relevant government programs and policies ensuring that community members are aware of available resources.

This grassroots approach undertaken by the SHG women demonstrates how the community members are taking proactive measures to cope with the effects of climate change. The efforts are small but through mobilisation, collective action, advocacy and knowledge sharing, they are building resilience and empowering themselves to face environmental challenges.

### **4.3.3 Adaptation Strategies**

The community's adaptation strategies in response to climate change and environmental challenges demonstrate a blend of traditional practices, community solidarity, and resilience in the face of limited institutional support. These strategies highlight both the adaptive capabilities of the community and the pressing need for more comprehensive, sustainable solutions.

Water management is at the forefront of their adaptation efforts. In the absence of consistent support from local authorities like the Ajmer Municipal Corporation (AMC) or the Public Health Engineering Department (PHED), the community has developed a range of coping mechanisms. They continue to rely on traditional water purification methods, such as adding alum to water and manually cleaning water tanks. This approach, while resourceful, underscores a significant gap in access to modern sanitation and health practices. The infrequent chemical treatment of water tanks by government officials - occurring as rarely as once every six months or year instead of the ideal monthly schedule - further exacerbates the community's water quality issues.

The shift from wells to piped water systems, while theoretically an improvement, has brought its own set of challenges. With the community entirely dependent on the water supply and faced with non-functional, algae-infested wells, they've had to develop strategies to cope with frequent shortages. In Berwa Basti, for instance, residents have created informal support networks, borrowing water from neighbors who have motor pumps when faced with crises. This practice of resource sharing extends beyond immediate neighborhoods, with communities relying on each other during periods of scarcity.

The impact of water scarcity on daily life is profound, affecting even basic chores like laundry. Notably, the persistence of these challenges has led to a normalization of water scarcity, with some community members no longer perceiving it as a problem - a concerning adaptation that could hinder long-term solutions.

Despite these challenges, the community has shown remarkable resilience. They have adapted to water shortages, rebuilt permanent housing in the wake of natural disasters, and

maintained strong social ties that facilitate resource sharing. This resilience is further bolstered by the crucial role played by community-based organizations, NGOs, and Self-Help Groups (SHGs). These entities have been instrumental in providing essential support, facilitating access to resources and services, and empowering community members to address their challenges collectively.

The community's journey towards economic empowerment, as evidenced by the SHGs' activities, is an important aspect of their adaptation strategy. By improving their economic situation, community members are better positioned to invest in technologies like motor pumps for water access or to withstand periods of resource scarcity.

However, these adaptation strategies also highlight the need for more comprehensive support. The reliance on traditional methods and community-based solutions, while admirable, points to a gap in access to modern, sustainable technologies and practices. It underscores the necessity for continued support, training, and awareness programs to help the community achieve sustainable livelihoods and improved living conditions.

In conclusion, while the community has shown remarkable adaptability and resilience, their strategies also reveal the urgent need for more robust, institutional support to address the root causes of their challenges, particularly in water management and sanitation. The normalization of water scarcity among some community members is a concerning trend that needs to be addressed to ensure long-term sustainability and improved quality of life.

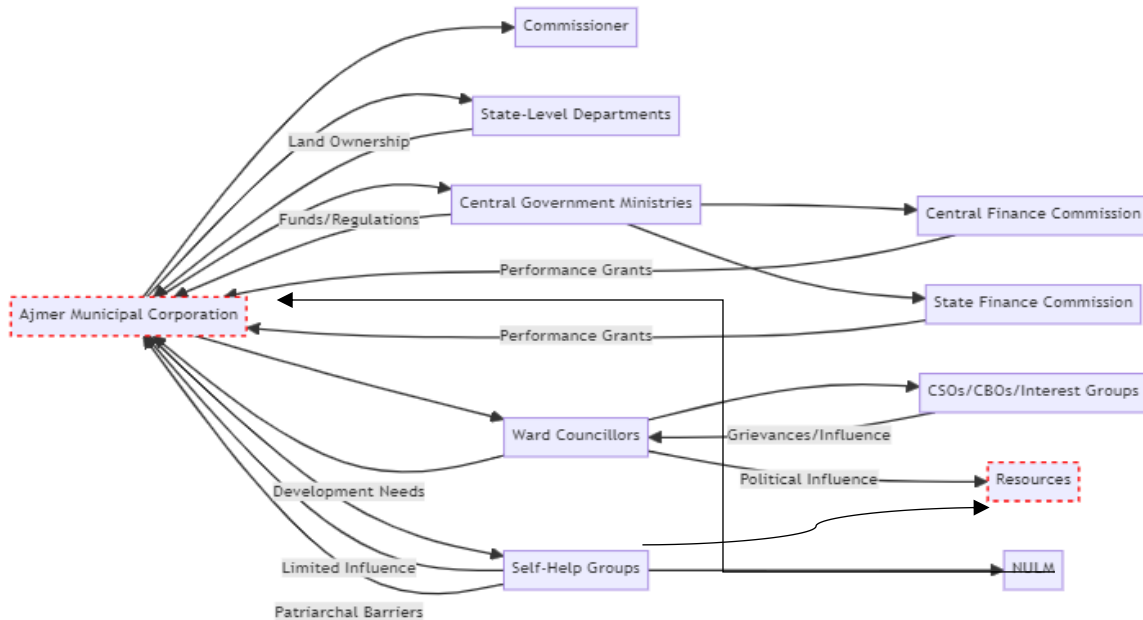
#### **4.4 Stakeholder Analysis**

The constitutional mandate is evident in the 74th Constitutional Amendment Act of 1992 known as the Nagarpalika Act which provides for “a framework and regulation of the process of assignment of powers and functions to local government including developing and adopting systems and procedures to risk reduction and reducing and strengthening resilience. Weak government capacities, and conventional forms of governance continue to fail, thus, undermining urban resilience. Nevertheless, the state and other actors, including the civil society and Community based organisations, academia, other departments like PHED and citizens, do not remain passive but explore alternative forms of governance that shape and reshape relations.

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related to urban planning, waste management, and environmental protection. The AMC is also responsible for ensuring the provision of basic civic amenities and services in a climate-resilient manner. Complementing the AMC's efforts, the Ajmer Development Authority (ADA) focuses on urban planning and development, including land-use zoning and infrastructure development. The ADA formulates and implements strategies for sustainable urban growth and climate-resilient development, collaborating with the AMC and other stakeholders for integrated urban planning.



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The Public Health Engineering Department (PHED) is responsible for planning, designing, and maintaining water supply, sanitation, and drainage infrastructure, ensuring climate-resilient and sustainable management of water resources. It collaborates with other agencies for integrated water resource management, which is crucial for enhancing the city's overall resilience.

Finally, academia contributes by conducting research and assessments on climate change impacts, vulnerabilities, and adaptation strategies, providing technical expertise and

knowledge support for climate-resilient planning, and facilitating capacity-building programs and knowledge exchange among stakeholders. Effective collaboration, coordination, and a clear delineation of roles and responsibilities among these stakeholders are crucial for developing and implementing comprehensive climate-resilient strategies in Ajmer.

#### **4.4.1 Contributors: Key Stakeholders Engaged in Climate Resilience**

An intricate network of stakeholders like the Ajmer Development Authority (ADA), Ajmer Municipal Corporation (AMC), Public Health Engineering Department (PHED), Civil Society Organizations (CSOs)/Community-Based Organizations (CBOs), academia, and the Slum Improvement Committee (SIC)/community contributing to climate resilience efforts in Ajmer.

This is how their responsibilities and engagements are delineated:

1. The ADA and AMC are the key government agencies responsible for urban planning, development, and service delivery. However, there seems to be a lack of clarity and coordination between them, hampering effective climate-resilient planning and implementation.
2. CSOs and CBOs play a significant role in shaping resilience programs, raising awareness, representing community interests, and implementing community-based adaptation initiatives.
3. The SIC serves as a platform for community representation, enabling informal settlement residents to participate in slum upgrading and resilience-building efforts.
4. PHED is responsible for planning and maintaining water supply, sanitation, and drainage infrastructure, which are crucial components of climate resilience.
5. Academia contributes by conducting research, providing technical expertise, and facilitating knowledge exchange and capacity-building programs for climate-resilient planning.

While these stakeholders have their respective roles, The interactions with the network of stakeholders highlights potential conflicts arising from the lack of coordination, unclear responsibilities, and the absence of a dedicated Climate Action Plan. However, it also points out opportunities for alignment through fostering collaboration, clarifying roles, promoting joint planning, and engaging diverse stakeholders in inclusive decision-making processes.

#### **Institutional Network Challenges:**

The interactions highlighted several institutional challenges that need to be addressed for effective climate-resilient city planning:

4. **Lack of Climate Awareness and Capacity:** There is a need to build climate awareness and capacity within these institutions, particularly among officials who play a crucial role in urban planning and development.
5. **Limited Coordination and Collaboration:** The lack of coordination and collaboration between the AMC, ADA and other department emerged as a significant barrier, hindering effective urban planning and service delivery.
6. **Unclear Roles and Responsibilities:** The division of roles and responsibilities between the AMC and ADA seems to be ambiguous, leading to potential overlaps, gaps, and conflicts in urban planning and development efforts.
7. **Absence of Dedicated Climate Budget and Resources:** The lack of a dedicated climate or gender budget and resources within these institutions may hinder the implementation of climate-resilient and gender-inclusive strategies.

#### 4.4.2 Stakeholder Relationship

The research findings reveal a complex web of institutional challenges and governance issues in Ajmer that significantly impact water management and urban development. A prominent issue is the jurisdictional dispute between the Ajmer Development Authority (ADA) and Ajmer Municipal Corporation (AMC) over the control of certain slum areas, leading to ineffective management and service delivery. This lack of coordination extends to other departments, including the Forest Department, hindering effective urban planning and environmental management. Political conflicts between different parties at various levels of governance further impede progress in addressing local issues, while the dissolution and slow reformation of environmental committees during changes in state government disrupt continuity in environmental initiatives.

The engagement of government institutions with Civil Society Organizations (CSOs) appears limited, with many not being adequately involved in government meetings or decision-making processes. Some CSOs, like CFAR, prefer to work as intermediaries rather than directly within the bureaucratic framework, highlighting a need for more flexible and inclusive governance structures. There's a clear need for greater involvement of CSOs and community representatives in master planning and policy-making processes to ensure more effective and community-oriented solutions.

Environmental planning and implementation face significant challenges. The District Environment Plan of Ajmer, created in response to green tribunal inquiries, has not been implemented effectively. The plan lacks crucial elements such as input from rural populations and chapters on ecology and biodiversity, as shared by environmental experts. Town and master plans are often created pro forma without proper follow-through or implementation, indicating a disconnect between planning and execution.

The engagement of Self-Help Groups (SHGs) in water management, as emphasized by the AMRUT 2.0 guidelines, faces numerous obstacles. Despite having approximately 7,500 women in SHGs, only about 4,500 are active. The lack of incentives and financial benefits hinders women's participation in water management activities, the Coordinator of NULM shares. There's a notable disconnect between the livelihood activities of SHGs, such as pickle and papad making, and the water management tasks outlined in AMRUT 2.0, suggesting a need for more integrated approaches to community involvement.

Environmental concerns are prominent, particularly regarding the Ana Sagar lake, which faces significant issues with water hyacinth growth. This problem is partly attributed to the construction of pathways on crucial wetland areas as part of the SMART City mission, highlighting the unintended consequences of urban development projects. There's a perception among some officials that environmental considerations hinder development, leading to resistance against environmental protection measures. Reports of unethical mining taking place rapidly in Ajmer indicate weak environmental regulations or enforcement.

Community-based organizations (CBOs), NGOs, and SHGs play a vital role in addressing local issues and providing essential services, often proving more active and effective than government institutions. CFAR's involvement in establishing ward committees to address civic and social matters demonstrates the potential of community-led initiatives, though these committees lack formal recognition and budget allocation from AMC.

Awareness and training issues persist within both government departments and community groups. There's a lack of awareness within government departments about guidelines like GESI in AMRUT 2.0, and limited training opportunities for SHGs in water management and related areas. Mobilizing women for training faces challenges due to competing priorities and a lack of perceived benefits, indicating a need for more targeted and incentivized capacity-building programs.

#### **4.4.2 Stakeholder Relationship (Analysis of Venn Diagram)**

Venn Diagram was employed to find institutions that are important and accessible to the community with matters relating to water and sanitation. In the discussion leading up to the activity, women detailed the irregularity and poor quality of water, mentioning that water supply is infrequent, arriving every other day and often being dirty or salty. The sanitation conditions are also highlighted as problematic, with dirty drains and roads, despite efforts to maintain cleanliness.

In ward 48, the women explained the community's efforts to address these issues, mentioning that complaints about water quality and supply are directed to local authorities, including the Water Box and the councilor (parshad). They elaborate on the

process, noting that complaints are made through various channels, including a specific phone number (818). The role of the Water Box is described as monitoring and addressing water issues in different localities.

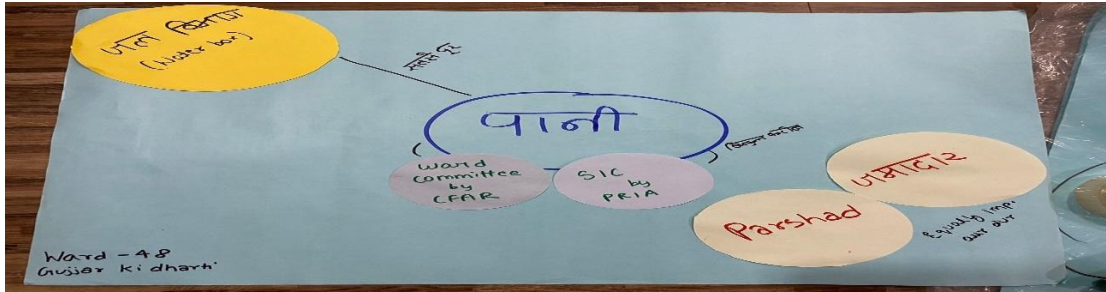


Image Source: Field Data, 2024

Further, the women mention that the water supply comes from Bisalpur, and several officials, including those from the water department, are responsible for addressing the community's water-related concerns.

The conversation continues with a detailed discussion about the local authorities and individuals responsible for addressing water-related issues in the community. The women were asked to write names of actors or institutions related to water that they think are very important on the big circle, actors and institutions that are least important on the smaller circle and institutions of medium importance on the medium sized circle. They were then asked to place the circle on the chart paper based on their accessibility.

Several names who are part of the SIC and ward committees were mentioned, including Rajinder, Jain Sahab, and Abhishek Sahr, who are actively involved in resolving water supply problems. These are the first point of contact for the community when any water or sanitation related issue arises.

A recent incident was recounted where two streets were facing a lack of water supply. The community members took the initiative by sharing their water with those affected and lodged complaints. This led to the authorities visiting the site with a machine to check the water supply, identifying the issue as a problem with the pipeline.

The ward committees and SIC were established by organizations like CEFAR and PRIA NGOs, as the government had not set up ward committees in Ajmer. Women mentioned these SIC and Ward committee members were the most helpful and the first point of contact with matters related to water and sanitation. However, they were not as important as the “Water department”. They expressed that no matter how much effort the SIC or ward committees put, all the decision lies with the water department “Jal Vibhaag”. So, it is the Water department that is the most important but the least approachable because of the bureaucratic hierarchy.

The councillor (parshad) is described as being highly involved with the community, often spending more time in the neighborhood than at home, indicating their dedication to addressing local issues. For the women the ward councillor was a very important figure but still not the first point of contact as it is the SIC and Ward committees that go to him in case an issue arises. He is also not able to make independent decisions and is dependent on the Water department, so he was identified as a person of medium importance.

Furthermore, the women explained that when there is a significant problem, such as a blocked drain, the councillor coordinates with various departments, including the water department and sanitation workers, to resolve it. The community appreciates the councillor's proactive approach and the use of seals (सील) to mark resolved issues, ensuring accountability and transparency.

The conversation underscores the community's reliance on a network of local leaders, committees, and authorities to manage their water supply and sanitation issues. Despite the challenges, the community demonstrates resilience and proactive engagement in seeking solutions to their problems.

Women elaborates on the process of addressing water issues, noting that the community first approaches the ward committee and SIC, who then escalate the issue to the councillor. The councillor, in turn, coordinates with the water department to resolve the problem. This hierarchical structure is necessary due to the division of responsibilities among different authorities, each specializing in different aspects of community welfare, such as water supply and sanitation.

They pointed out that the councillor is an accessible authority for the community. They can be reached quickly through SIC and Ward Committees. The councillor acts as a bridge between the community and higher authorities like the water department, making them an essential part of the problem-solving process.

Discussing sanitation, they highlighted the importance of sanitation workers who are responsible for cleaning the drains and ensuring hygiene. They emphasize that without proper sanitation, water supply efforts would be futile as blocked drains could lead to severe hygiene issues. The sanitation workers are often seen working closely with the councillor, reinforcing the interconnected nature of their roles.

They acknowledge that the water department is the most crucial authority due to its role in ensuring a continuous and clean water supply. However, they also recognize the challenges in reaching the water department directly, noting that it is often perceived as distant or less accessible compared to local authorities like the councillor or ward committee.

The women mention that community members sometimes have to take matters into their own hands by directly approaching the ward committee or councillor when immediate action is required, such as during water supply disruptions or sanitation issues. The interviewee's

insights provide a comprehensive view of the local governance structure and the community's proactive approach in addressing their daily challenges.

Women mentioned that despite hardships due to water scarcity, there is minimal direct support from local authorities. The water department and other government officials are perceived as distant and difficult to reach, leaving the community to fend for itself. The discussion underscores the need for more reliable water supply systems and better support from local authorities to alleviate the daily struggles faced by the residents, particularly women.

A slightly different picture was portrayed by residents of ward 2. For the community helpline number 181, the councillor and AMC were all equally important but in case a water and sanitation issue arises they first complain at the 181-helpline number therefore the helpline number was the most accessible to them. Both the AMC and Ward councillor were equally distant from the community's reach, which shows the unequal dynamics between the councillor and the community members.

## **4.5 Community Engagement and Empowerment**

### **4.5.1 Role of Community-Based Organizations (CBOs) and Self-Help Groups (SHGs)**

In Ward 2 & 48, the role of Community-Based Organizations (CBOs) and Self-Help Groups (SHGs) has been pivotal in grassroots mobilization and development. These groups have served as crucial links between the community and external support systems. For instance, in Ward 2, Bairwa Basti, the SHG members have been at the forefront of advocating for better water and sanitation facilities. One SHG leader, Rekha, shared, “Humari SHG ki madad se humne kuch basic training li thi water conservation ke baare mein, lekin ab tak humari zindagi mein koi badlav nahi aaya.” (With the help of our SHG, we received basic training on water conservation, but so far, there has been no change in our lives.)



Image Source: Field Data, 2024

Moreover, CBOs like the Slum Improvement Committees (SICs) have been instrumental in facilitating community meetings and dialogues. These platforms have empowered residents to voice their concerns and engage with local authorities. During a focus group discussion in Ward 48, a member of the SIC noted, “*Hamari committee ne PHED ke sath meetings ki thi aur kuch demands rakhi thi, lekin koi significant progress nahi dekha.*” (Our committee had meetings with PHED and raised some demands, but we haven’t seen any significant progress.)

#### **4.4.2 Success Stories and Best Practices**

Despite the challenges, there are notable success stories that highlight the potential of community-led initiatives. In Ward 2, a SHG initiative led by Savita Devi successfully implemented a rainwater harvesting project, which significantly improved water availability during the dry season. Savita shared, “*Hamare gharon ke pass humne rainwater harvesting tanks banaye hain, aur ab hum pani ki kami ko kam kar pa rahe hain.*” (We have built rainwater harvesting tanks near our homes, and now we are able to reduce our water scarcity.)

Another success story comes from Ward 48, where the SIC's efforts led to the installation of hand pumps in areas previously dependent on unsafe water sources. This initiative not only improved water quality but also reduced the community’s vulnerability to waterborne diseases. A local resident, Priya, expressed her relief, saying, “*Pehle hum log roti roti ke liye paani dhoondhte the, ab humein safe aur clean paani mil raha hai.*” (Earlier, we searched for water for our daily needs, now we have access to safe and clean water.)

#### **4.5.3 Challenges in Community Participation**

While there have been successes, numerous challenges continue to hinder effective community participation. One major barrier is the lack of awareness and training on participatory processes. Many community members remain unaware of their rights and the mechanisms available for them to influence decision-making. In a discussion with SHG members in Ward 2, one member lamented, “*Hamari training ki kami ki wajah se humari baat sarkar tak pahunchti nahi hai.*” (Due to the lack of our training, our voices do not reach the government.)

Additionally, the apathy and lack of support from local authorities have been significant obstacles. During a meeting with a PHED official, the dismissal of SHG contributions was evident. The official remarked, “*SHGs ko humne training toh di thi, par ab unka koi faida nahi*

nazar aata.” (We had given training to SHGs, but now we don’t see any benefit). This attitude undermines the potential of these groups and discourages further community involvement.

Furthermore, the socio-economic disparities within the community exacerbate participation challenges. In areas like Bairwa Basti, the residents’ focus on immediate survival needs often overshadows long-term engagement in community development activities. A local leader, Rajesh, highlighted this dilemma, saying, “Yahan ke log rozgar aur basic needs ke chakkar mein community activities se door ho gaye hain.” (People here are so engrossed in daily survival and basic needs that they are distanced from community activities.)

While the role of CBOs and SHGs in Ajmer is undeniable, there is a critical need to address the existing gaps in training, support, and awareness. Success stories provide a beacon of hope, showcasing what is possible with community empowerment. However, overcoming the challenges of participation requires sustained effort, collaboration, and a genuine commitment from all stakeholders to empower the community effectively.

## **4.6 Policy and Institutional Framework**

### **4.6.1 Relevant Policies and Programs**

The urban informal settlements in Ajmer are influenced by several policies and programs at various governmental levels. Key among these are the policies implemented by the Public Health Engineering Department (PHED), Ajmer Municipal Corporation (AMC), and Ajmer Development Authority (ADA). These agencies are responsible for the provision of essential services such as water supply, sanitation, and urban development. However, support from these government agencies has been limited, leading to significant reliance on community-based organizations (CBOs), non-governmental organizations (NGOs), and self-help groups (SHGs) for coping with and addressing local issues .

### **4.6.2 Implementation Gaps**

Despite the presence of various policies and programs, there are critical gaps in their implementation. The limited support from government agencies like PHED, AMC, and ADA has resulted in inadequate infrastructure and resources for urban informal settlements. Key issues include water scarcity, poor sanitation, and inadequate waste management, which exacerbate health vulnerabilities among residents. Moreover, there is a significant lack of documentation and studies on community health, which hinders informed planning and intervention strategies.

One of the major challenges is the ineffective transition from traditional water sources to modern systems, leading to wastage and insufficient supply. Additionally, the prevalence of health issues such as anemia, hepatitis A, typhoid, and jaundice during the rainy season highlights the poor water quality and sanitation conditions in these settlements. The role of

the community medicine department, primarily focused on epidemiological investigation and routine immunization, lacks direct engagement with health and sanitation initiatives, further widening the implementation gaps.

#### **4.6.2 Opportunities for Policy Influence**

Despite the challenges, there are several opportunities for influencing policy to better address the needs of urban informal settlements in Ajmer. Enhanced collaboration between government agencies and community organizations can lead to more effective implementation of policies and programs. NGOs and SHGs have shown resilience and adaptability in addressing local issues, and their strategies can be scaled up and integrated into formal policy frameworks. For instance, community-based adaptation strategies to water shortages and health issues have proven effective and can inform broader policy measures.

Training and skill development programs organized by NGOs like CFAR have empowered community members, suggesting that similar initiatives supported by government agencies could significantly improve the livelihoods and resilience of residents. Additionally, there is a need for regular and systematic documentation of health and environmental conditions in these settlements to inform policy decisions. Addressing the implementation gaps through targeted policies and enhanced institutional support can lead to sustainable improvements in the living conditions of urban informal settlements in Ajmer.

## **5. GESI-focused Analysis**

### **5.1 Gender Disparities in Access to Services**

The field data reveals significant gender disparities in access to essential services among the residents of informal settlements in Ajmer. Women in these communities, primarily engaged in domestic work, bedsheet making, and daily wage labor, face considerable challenges related to water supply and sanitation.

**Water and Sanitation:** Women reported that the lack of adequate garbage disposal and clean water are the most pressing concerns. The water supply from the nearby Faysagar Lake is irregular and of poor quality, exacerbating health issues. The absence of regular waste collection means women often have to clean the drains themselves, which exposes them to health risks.



Image Source: Field Data, 2024

**Impact of Patriarchal Norms:** Patriarchal norms further limit women's mobility and decision-making power. Many women mentioned needing permission from their husbands to undertake significant actions, indicating a restriction on their autonomy and participation in community activities.

**Economic Disparities:** The primary source of income for many women is bidi making, which provides a meager and inconsistent income of ₹120 per day. This financial instability underscores the need for alternative livelihood opportunities.

## 5.2 Social Inclusion Challenges

The field data highlights the social inclusion challenges faced by marginalized communities in Ajmer, particularly those in Ward 48. The residents, especially women of the Koli caste, face numerous obstacles in accessing support and resources.

**Lack of Government Support:** The women reported receiving no training or livelihood support from government or non-government organizations. Their primary occupations, such as bidi making and flower garland making, offer insufficient income, and there is a notable absence of institutional support for improving their livelihoods.

**Community-Based Organizations (CBOs):** Despite the limited support from government agencies like the Public Health Engineering Department (PHED) and the Ajmer Municipal Corporation (AMC), CBOs, NGOs, and SHGs play a crucial role in addressing local issues.

These organizations provide essential services and advocate for better infrastructure and resources, although their impact is limited by resource constraints.

### 5.3 Empowerment initiatives impact

Empowerment initiatives, particularly through Self-Help Groups (SHGs), have shown some positive impacts on the economic and social well-being of women in these communities.

**Financial Inclusion:** SHGs like the Maa Durga, Prerna, and Priya SHGs have made strides in financial inclusion by offering loans at minimal interest rates. Members have also developed leadership skills through increased awareness, knowledge, and networking.

**Skill Development and Training:** Training provided by NGOs such as CFAR has equipped women with skills in making pickles, papads, bags, purses, doormats, and surf. However, the lack of funds has hindered the practical implementation of these skills, highlighting the need for sustained financial support to translate training into income-generating activities.

**Community Awareness:** SHGs have also played a role in raising awareness about various community issues and assisting members in accessing government programs and services. This includes facilitating the creation of necessary documents like health and Aadhaar cards, advocating for school admissions, and promoting women's rights and safety.

### 5.4 GESI Mainstreaming in Urban Resilience

Gender Equality and Social Inclusion (GESI) are critical in the context of urban resilience. The field data underscores the need for mainstreaming GESI principles in addressing the challenges faced by informal settlements.

**Climate Change Awareness:** There is a notable lack of awareness about climate change and health issues among community members. Traditional methods for clean water continue to be used, indicating a gap in access to modern sanitation and health practices

**Adaptation Strategies:** Despite these challenges, the community has shown resilience by adapting to water shortages, building permanent housing after natural disasters, and maintaining traditional practices. However, the ongoing environmental degradation and water scarcity issues necessitate a more robust approach to urban resilience that incorporates GESI principles.

## 6. Evaluation of the SECURE Decision Support Framework

### 6.1 Framework Application in Ajmer Context

The SECURE Decision Support Framework was applied in Ajmer, specifically in Ward no 2 & 48, to address various urban resilience challenges. This ward, characterized by its high

population density, informal settlements, and socio-economic vulnerabilities, required a comprehensive approach to resilience planning.

Key components of the framework application included:

- **Historical Mapping:** This technique provides insights into the historical evolution of the area, helping to identify patterns of urbanization and environmental changes over time. It revealed significant events that shaped the community, such as the introduction of water pipelines in 1960 and the construction of permanent houses after the 1975 flood.
- **Venn Diagram:** Used to map out key community institutions and their relationships, this tool highlighted the roles and interactions between various stakeholders, such as the Ajmer Municipal Corporation (AMC), Ajmer Development Authority (ADA), and community-based organizations (CBOs). This helped in understanding the governance structure and identifying gaps in collaboration and support.
- **Transect Walks:** These walks provided a detailed understanding of the physical and environmental conditions in the ward. Observations made during these walks highlighted issues such as inadequate sanitation, poor drainage systems, and the impact of environmental degradation on community health.
- **Interviews and Focus Group Discussions:** Engaging with community members through interviews and focus groups facilitated the collection of qualitative data on their experiences and priorities. These interactions revealed the economic activities of the community, such as bidi making and daily wage labor, and the socio-economic challenges they face, including irregular incomes and limited access to basic amenities.
- **Participatory Rural Appraisal (PRA) Techniques:** PRA techniques enabled active community participation in identifying issues and developing solutions. Activities such as social mapping and resource mapping helped in visualizing the community's assets and vulnerabilities, fostering a sense of ownership and collaboration among residents.

## 6.2 Effectiveness in Addressing Urban Resilience

The SECURE framework demonstrated effectiveness in enhancing urban resilience in Ajmer through several community-driven strategies:

- **Adaptation Strategies:** The community showed adaptability in response to challenges. For instance, after natural disasters, residents rebuilt their homes with

more durable materials. Social networks played a crucial role in resource sharing and collective action during times of crisis.

- **Role of Community-Based Organizations (CBOs):** CBOs, NGOs, and SHGs were pivotal in providing essential services and facilitating access to resources. Their contributions included financial inclusion initiatives, vocational training, and emergency response, significantly boosting community resilience.

Key successes include:

- **Financial Inclusion:** SHGs improved financial stability by offering low-interest loans and promoting savings among members.
- **Vocational Training:** Training programs in Vadodara enhanced skills and created new livelihood opportunities, particularly for women and marginalized groups.

### 6.3 GESI Integration in the Framework

Gender Equality and Social Inclusion (GESI) were integral to the SECURe framework, aiming to ensure inclusivity and equity in resilience planning:

- **Women's Participation:** Efforts were made to engage women in resilience activities, though their participation varied. While women's groups were active in advocating for better services, their involvement in certain activities, like park, neighborhood and community cleaning, was inconsistent due to competing livelihood priorities.
- **Incentive Structures:** The absence of financial incentives and logistical support hindered greater participation. Providing stipends or transportation to training centers, and recognizing community champions, could significantly enhance engagement.

Key areas for improvement include:

- **Consistent Engagement:** Regular engagement with women's groups and consistent support can enhance participation and effectiveness.
- **Targeted Training:** Tailored training programs addressing the specific needs and constraints of women and marginalized groups can improve their capacity to contribute to resilience initiatives.

### 6.4 Lessons Learned and Areas for Improvement

The application of the SECURe framework in Ajmer highlighted several lessons and areas for improvement:

- **Community Engagement:** Continuous and consistent engagement is vital. Involvement of local leaders and organizations can facilitate better communication

and ensure resilience strategies are community-driven. Building trust and fostering a sense of ownership among community members is crucial for sustainability.

- **Capacity Building:** Effective capacity-building initiatives need to be frequent and well-supported. Providing incentives for participation, such as financial compensation or recognition, can enhance engagement. Training programs should be practical and relevant, addressing the specific needs and challenges faced by the community.
- **Resource Management:** Sustainable management of natural resources, particularly water, is essential. Regular monitoring and maintenance of water supply systems can prevent issues such as scarcity and contamination. Community education on sustainable practices and the importance of water conservation can reduce dependency on external sources and promote resilience.
- **Policy Support:** Strengthening the role of government agencies and ensuring their active participation and support is critical. Addressing systemic issues, such as unreliable electricity affecting water pumps, requires coordinated action from multiple stakeholders. Policy interventions should focus on comprehensive water management and support for urban infrastructure that can withstand environmental stresses.

Overall, while the SECURE framework has made significant strides in addressing urban resilience in Ajmer, continuous efforts in community engagement, capacity building, and policy support are essential for long-term sustainability and resilience. The framework's flexibility and community-centered approach have proven effective, but ongoing adaptation and improvement are necessary to meet the evolving challenges of urban resilience

## 7. Conclusion

The SECURE project's field visits in Ajmer's urban informal settlements, particularly in Wards 2 and 48, has provided invaluable insights into the complexities of community resilience. Key findings highlight the community's adaptability in the face of adversity, with significant roles played by community-based organizations (CBOs), non-governmental organizations (NGOs), and self-help groups (SHGs). These entities have been pivotal in facilitating resource access, providing essential services, and implementing financial inclusion initiatives that bolster community resilience. Integrating Gender Equality and Social Inclusion (GESI) into the SECURE framework has ensured that the needs of vulnerable and marginalized groups are addressed, although there remains a need for enhanced engagement and participation, particularly among women.

In Ward 2's Bairwa Basti, for instance, the stark normalization of water-related health issues and mobility problems, especially among women, underscores the urgent need for targeted interventions. The women casually discussing frequent illnesses as part of their daily lives reflects deep-seated issues that require immediate attention. Similarly, in Ward 48, differences in unity, awareness, and leadership compared to Ward 2 demonstrate the variability in community dynamics and the necessity for tailored approaches.

The implications for urban resilience in Indian cities are profound. Regular community engagement, capacity-building initiatives, and sustainable resource management practices are essential for fostering resilience. Policies and programs need robust support from government agencies, ensuring effective implementation and addressing systemic issues like water scarcity, poor sanitation, and health risks. This project underscores the importance of participatory approaches, involving local leaders and community members in resilience planning and execution.

The SECURE project has successfully applied its framework in informal settlements in Ajmer district of Rajasthan, demonstrating the importance of GESI integration and the critical role of methodological approaches such as KIIs, historical and social mapping, focus group discussions, and transect walks. These methods have provided a comprehensive understanding of local contexts and informed effective resilience strategies. In Wards 2 and 48, these approaches have highlighted specific challenges and potential solutions unique to each settlement, reinforcing the need for localized interventions.

Moving forward, consistent engagement with community members, targeted training programs, and policy interventions focused on comprehensive water management and urban infrastructure support are vital. The continuous adaptation and improvement of the SECURE framework will be crucial to meet the evolving challenges of urban resilience, ensuring sustainable and inclusive development for informal settlements in Indian cities. The journey toward a more resilient Ajmer, starting with Wards 2 and 48, offers a model that can be replicated and scaled across other urban areas facing similar challenges.

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