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Sustainable Water Management: assessing external actor intervention to promote and develop coproduction processes

The case of Saath and the slum communities

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મારી અનુભવ સાથે સંસ્થા સાથે – મારા શબ્દોમા

સાથ સાથેનો અનુભવ ઘણો સારો રહ્યો છે. સાથ સંસ્થાના સહયોગ બદલ હું તેમનો આભારી છું.

એપ્રિલ ૨૦૧૨ થી મારા પ્રોજેક્ટ માટે મને સતત માર્ગદર્શન આપવા બદલ હું સાથના એક્ઝીક્યુટીવ ડિરેક્ટર કેરનબેનનો આભારી છું. આ સિવાય સ્લમ વિસ્તારની સમસ્યાઓ અને પડકારો વિશે મને અવગત કરાવવા બદલ અને આ વિષય અંગે યોગ્ય માર્ગદર્શન અને સહકાર આપવા બદલ હું નિરજભાઈ, ચીનમયીબેન, યુ.આર.સી. કોઓર્ડીનેટર્સ અને તેના સ્ટાફનો આભારી છું.

હું કુણાલભાઈનો વિશેષ આભારી છું, તેઓ અદભૂત ઓર્ગેનાઈઝર છે. તેમણે હંમેશા મારી મદદ કરી છે. મારી દરેક સમસ્યાના ઉકેલ બદલ અને મારા અભ્યાસમા સતત મદદરૂપ થવા બદલ હું તેમનો આભારી છું. મને તેમના રુપમા સારો મિઠા મળ્યાનો આનંદ છે.

આ સિવાય હું સાથના તમામ કર્મચારીઓનો આભારી છું. સાથ સાથે કામ કરવાનો અનુભવ ઘણો સુખદ રહ્યો છે. અહીંના કર્મચારીઓની કામ કરવાની શૈલી અને ઓફાસનું વાતાવરણ ખૂબ જ સરસ છે.

ભારત વિશે મેં ઘણું વાંચ્યું હતું પરંતુ જ્યારે મને અહીં આવવાની તક મળી ત્યારે હું ઘણો ઉત્સાહીત થઈ ગયો હતો. અહીંની સંસ્કૃતિ અને વિવિધતાએ મને ઘણા પ્રભાવિત કર્યા છે. જો કે મને ભારતમા ફરવાનો મોકો મળ્યો નથી પરંતુ અમદાવાદમા રહીને ભારત અને તેની સંસ્કૃતિ વિશે મને ઘણી માહિતી હું મેળવી શક્યો છું. અમદાવાદની સૌથી અદભૂત વાત જે મને સ્પર્શી ગઈ હોય તો તે છે અહીંના સમુદાયમા સાથે રહેવાની ભાવના છે. જે વિદેશમા જોવા મળતી નથી. મને આશા છે કે ટૂંક સમયમા હું ભારત પાછો આવીશ અને આના માટે મારે કોઈ કારણની જરૂર નથી. જો હું ફરા ભારત આવીશ તો તેની શરૂઆત અમદાવાદથી જ કરીશ.

અંતમા આપ સૌનો ફરીવાર દિલથી આભાર માનું છું.

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1 RESEARCH BACKGROUND

1.1 PROBLEM DESCRIPTION

Halving the number of people that do not have access to water and sanitation facilities (WATSAN) by 2015, such is one of the Millennium Development Goals. Albeit the remarkable improvements since the 1990s, water and sanitation issues are still an important problem in the developing areas of the world such as India, which accounts for 17% of the total world population but possesses 4% of the world's water sources (Government of India, 2012).

In order to address water and sanitation issues, governments, international organizations, researchers and policy makers have developed throughout the years several models that should ensure an equitable access to water for all human beings. From centralized governmental provision, to market-based approaches, to public private partnerships, but still as of today, there is no general consensus on which models guarantee to a larger share of the population to access WATSAN services.

Within the discourse on public goods and services provision, the concept of "Coproduction" emerges in academic literature. Coproduction implies that both the customers and the provisioner of the service should cooperate in order to achieve optimal service provision.

But what does coproduction entail? According to literature (Ostrom 1996, Oakerson 1999) three main conditions must be met: (I) an organized customer group; (II) high coordination between the customer and the provisioner of the service and (III) clear enforcement of rules, monitoring and inclusion of the customers in the decision making processes.

Coproduction does not include the presence of external agents, such as an NGO in promoting or developing the process. In developing countries, the coverage of WATSAN services often does not reach the population as a whole due to lack of infrastructures; inclusive policies or governmental failures in providing the services. For this reasons involving the user group in the process of producing the services might be a feasible approach to guarantee higher coverage in service delivery and an NGO could acts as a broker between the service provider and the consumers.

Therefore the scope of this research is to investigate whether the presence of an external actor (the NGO Saath) can create or promote favourable conditions in which coproduction processes for water and sanitation services between the slum residents of Ahmedabad (India) and its municipality are more likely to happen. It is interesting, in 2013 to conduct such a research project due to the fact that India is a country with sustained economic development, which unfortunately also results in wide gaps between the growing middle class and the also growing poor share of the population. Experimenting with new models and apply them to slum conditions can teach us, as an academic community and as a society what we should really pursue for further human development and enable all human beings to have access to basic daily resources that in developed countries we often take as granted.

The study will pursue its objective by assuming that the conditions needed for a coproduction process to be established with NGO inclusion are: (I) presence of a customer group involved in collective action behaviour towards WATSAN issues; (II) a capable NGO which helps the

customer group to develop its collective action capacities and (III) high degree of coordination between the customer group and the NGO. Additionally, the study will investigate whether the institutional setting for WATSAN poses advantages or challenges for the coproduction process to flourish.

1.2 RESEARCH QUESTION

The main research question to be answered by the study is:

“Under which circumstances can an external actor be successful in promoting and establishing WATSAN coproduction processes between the slum residents and the municipality of Ahmedabad?”

The research question will be complemented with further detail by addressing three sub-questions. They are as follows:

Sub question 1

“To what extent does the presence of capacities of the customer group for collective action influence the achievement of high degree of coordination with the NGO?”

Sub question 2

“Which capacities are needed at the NGO level in order to promote and develop collective action behaviour in the consumer group and achieve high degrees of coordination with it?”

Sub question 3

“To what extent does the coordination between the slum residents and the NGO result in a functional relationship with the municipality of Ahmedabad for the establishment of coproduction processes for WATSAN?”

Moreover, the research establishes two main independent variables and one main dependent variable: (I) customer group capacities to achieve collective action for WATSAN [independent]; (II) NGO capacities [independent]; (III) coordination customer group –NGO [dependent]. In addition to these variables, which constitute the core of the research, another intervening variable which is assumed to impose influences on the three main variables of the study was included in the study: “the institutional framework”.

To assess how the variables were established as a consequence of the literature review please refer to the theoretical background section of this work, to address the full operationalization of the variables and their indicators please refer to section 4.3 of this work.

1.3 RESEARCH OBJECTIVES

The research objectives of this project is to provide descriptive, explanatory and prescriptive knowledge on the degree of influence that an NGO – as an external actor- does have as regards of facilitating the establishment of TG-Municipality coproduction processes for WATSAN services in the poor areas of urbanized contexts. In order to achieve these goals, 5 separate research objectives were established.

1. Analysis of several TG capacities to investigate whether the communities are ready to engage in collective action behaviour on WATSAN issues
2. Analysis of several NGO capacities that are deemed relevant to investigate whether the NGO is able to function in a sustainable way (economic sustainability, networking, organization of the work and so on) and interact with its customer group
3. As a consequence of the first two objectives, assess if the relations between the customer group and the NGO may develop in coordination processes that could become the set-up of prospective coproduction processes between the customer group and the municipality
4. Investigation on the institutional setting in which the customer group and the NGO interact, and address whether the institutional setting is imposing challenges or chances for setting up coproduction processes
5. Provide prescriptive knowledge in the form of recommendations to the NGO that hosted the project on how to improve or introduce the capacities needed to establish collective action behaviour in the customer group and how it is possible to achieve higher degrees of coordination with it.

1.4 RESEARCH FRAMEWORK

The study, in addressing its research objective, was created according to a series of several steps.

First and foremost, a literature review on the concept of coproduction allowed the author to understand the main conditions that must be met in order to achieve functional coproduction processes. As the process of reviewing academic articles on the subject continued, it was discovered that, among other more logistics factors (for instance, the presence of technology to be employed in building infrastructures), the consumer group had to hold certain capacities and be involved in collective choice processes in which clear statements about the preferences as regards of the coproduction process to be established. Therefore a major focus of the literature review for this work was to understand which capacities are relevant to determine if a customer group is involved in collective action behaviour towards WATSAN problems. Different sources were employed, from works on common pool resources management to reports of international organization in addressing community participation in WATSAN services. This step of the organization of the research established the first sub-question of the study and the first dependent variable “customer group capacities to achieve collective action”.

Since the research takes into account an external agent (the NGO Saath) to be included in empowering the customer group towards WATSAN issues and promote the establishment of coproduction between the slum residents and the municipality, it was deemed relevant to conduct an NGO capacity assessment. The scope of the assessment is to state whether the NGO

could be considered capable in accomplishing the two main tasks introduced above. For this reason academic literature on NGO capacity development, previous governmental-driven WATSAN projects with NGO inclusion in India and International Organization reports on capacity development and NGO capacities made possible to establish the second independent variable of the study “NGO capacities”. This second variable is connected to the second sub-question of this study.

Coproduction, in order to be successful takes into account a high degree of coordination between the customer group and the service provider. By any means, the NGO for the scope of this study is not considered as a service provider, which still is the municipality. Due to the focus of this study in external actor intervention, the coordination is considered as customer group – NGO. Therefore, the dependent variable of the study is established: “customer group – NGO coordination”. The variable is composed by a set of indicators¹ which are a product of the customer group and NGO assessment. The variable is linked to the sub-question 3 of this study.

During the data gathering phase an additional element was added to the research objectives: the analysis the legal framework for WATSAN an additional step was included in gathering additional useful information that could provide more detail to the results of this research: the analysis of the institutional framework in which the NGO and the customer group have to interact. The underlying reasoning is that the two stakeholders do not interact in an isolated context, but are influenced by the policies and schemes provided by the municipal corporation of Ahmedabad. Therefore it is likely that the institutional setting influences (I) the development of the capacities of the two main stakeholders and (II) the chances of establishing functional coordination processes between them. It must be noted that the variable characterizing the institutional framework is not treated as independent but as intervening one.

¹ Please refer to section 4.3.4

The research steps are summarized in Figure 1, the areas highlighted in red display the main research focuses.

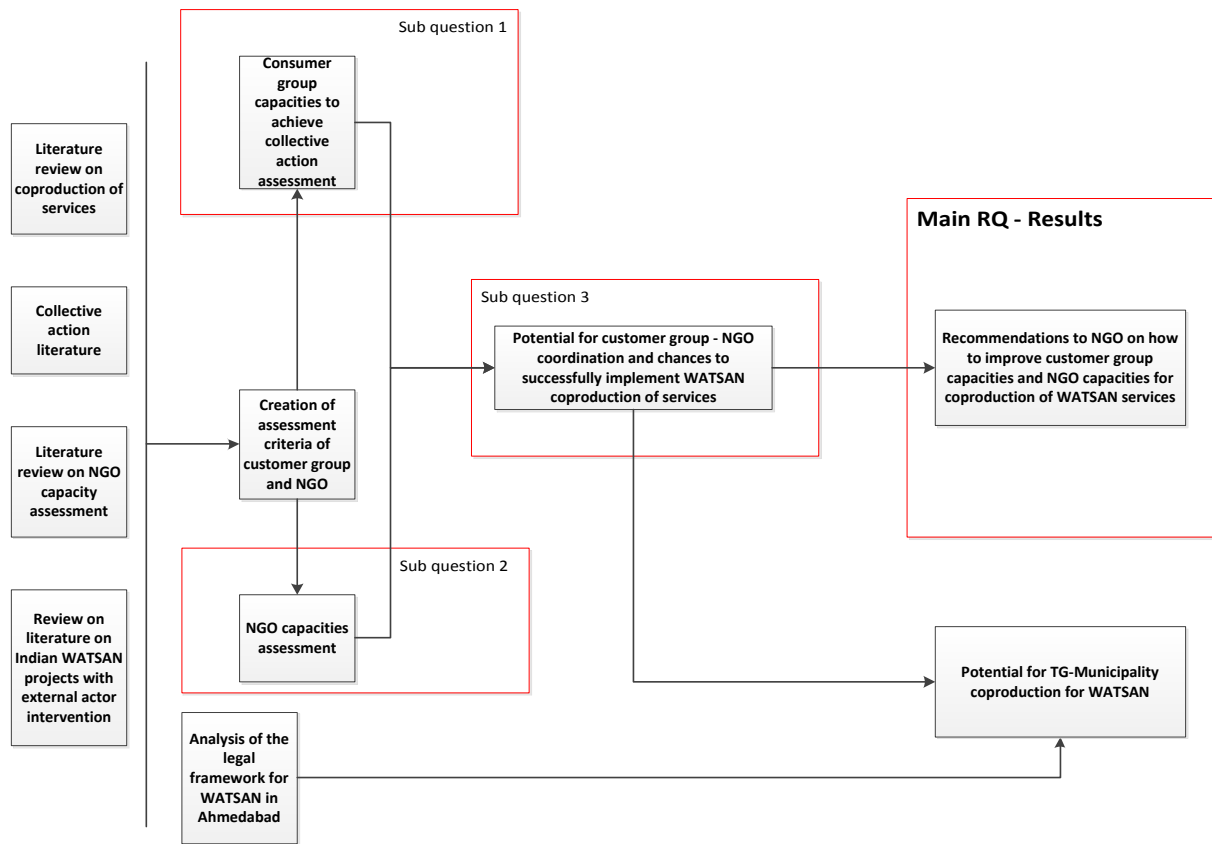


Figure 1: Research framework, source: Author

2 RELEVANCE FOR SCIENCE AND SOCIETY

2.1 SCIENTIFIC RELEVANCE

The scientific relevance of this project is tied to the notions of coproduction of services, collective action development in customer groups and capacity development towards a sustainable development issue.

Overall, aside from answering the main research question and the sub-questions, the project will provide to the academic community an assessment tool based on the concepts of coproduction, capacity development and collective action which is the product of literature review and field-work research that was conducted from December 2012 to March 2013 in Ahmedabad, Gujarat. Said assessment tool can be modified and used in further research projects in which the need to assess capacities of certain groups of actors, investigate on collective action processes, potential coordination between a customer group and a governmental/private agent and coproduction processes is needed.

Lastly, an absence of academic literature as regards of coproduction processes for WATSAN in slum areas of urbanized contexts in India with NGO inclusion was discovered during the literature review phase. Therefore this study will hopefully spark further research projects on the subject that will improve and further develop the assessment tools created for this study.

2.2 KNOWLEDGE GAPS

As a consequence of the literature review, two main knowledge gaps were identified: (I) lack of literature sources related to WATSAN projects in urbanized contexts in India; (II) the literature review on governmental-driven WATSAN projects in India did not produce results as of external actor intervention in coproducing services.

The first knowledge gap will be filled in section 5 of this paper, albeit the results will be narrowed down to Ahmedabad's context due to the fact that WATSAN legislation varies according to the state member and the local municipal corporations.

The second knowledge gap is related to the core of the research; in the reviewed articles on governmental-driven WATSAN projects with NGO inclusion in India the concept of coproduction was not explicitly employed, although it was implicitly part of most of the described projects as in: need of coordination between customer groups, NGOs and governments; customer group taking part in operation and maintenance of projects' objectives and so on. The second knowledge gap will be filled with the final results of this study by bringing reflections on the possibility of establishing coproduction of WATSAN services in the slum areas of India.

2.3 SOCIETAL RELEVANCE

The societal relevance of the research is first and foremost tied to Saath, the NGO that hosted the data gathering phase of this project. Consequently, at the end of this work, Saath is provided with recommendations and an assessment tool for capacities that can be used for three main purposes: (I) Assess customer group capacities achieving collective action; (II) self-reflection on the results of the NGO assessment and (III) strengths/weaknesses of other factors such as institutional processes which might influence the outcomes of their future projects.

The results of this project are related to one the main instrument that Saath uses to interact with the slum communities: the URC. Nevertheless the assessment tool can be used by any NGO that is willing to establish sustainable/human development projects in which the inclusion of the customer group is a crucial factor of success. The assessment tool is by any means not universal, but can be used and tailored to the context in which an NGO/other agents have to address subjects such as collective action, capacity development in the customer group and potential coordination.

3 THEORETICAL BACKGROUND

The scope of this section is to provide the reader with relevant information on the building blocks composing the two independents and the dependent variable of the study. The theoretical background is composed of several sections: (I) an introduction on WATSAN; (II) the definition of a coproduction process; (III) the capacities needed at the customer group to level to achieve collective action; (IV) NGO capacity assessment (V) customer group-NGO coordination; (VI) presentation of functioning institutions enabling the development of coordination processes

The theoretical background will then be concluded with a section dedicated to the conceptual model, in order to display the interactions between the variables established by the study.

The full set of variables and their operationalization through means of indicators can be accessed in section 4.3.

3.1 INTRODUCTION TO WATER AND SANITATION

The United Nations, in the resolution 64/292 of august 2010, recognized “*water and sanitation services as a human right that is essential for the full enjoyment of life and all human rights*” (U.N., 2010, p. 2). According to the UN-HABITAT a settlement has inadequate drinking water supply if less than 50% of the households have an improved water supply, which may consist of (I) household connection; (II) access to public stand pipe and (III) rainwater collection(UN-HABITAT, 2003, p. 12). In the case of sanitation facilities a settlement has inadequate sanitation if less than 50% of the households have improved sanitation which may consists of (I) public sewer; (II) septic tank; (III) pour-flush latrine and (IV) ventilated pit latrine (ibid.).

The importance of such resolution was manifested due to the deep concern about the number of individuals still lacking improved water and sanitation (WATSAN) facilities albeit improvements have been achieved in the past years, the discussion on WATSAN still remains important in the human development agenda. As a recent joint press release of UNICEF reports, the Millennium Development Goal for 2015 to halve the number of people not having access to improved water sources was met in 2010, with 6.1 billion (89% of the world’s population) individuals having access to improved water sources. Sanitation facilities provision, albeit the remarkable improvements, will certainly not achieve the goal of 75% coverage throughout the globe, nevertheless as of today 63% service provision for sanitation was achieved and by 2015 the percentage of people will likely reach 67% and was recently the protagonist of another call for action against the global sanitation crisis (U.N. News Centre, 2013).

The country in which this study was conducted, India, is characterized by issues of WATSAN service delivery. According to the central government of India, the country constitutes more

than 17% of the world's population, but only holds 4% of the world's renewable water sources, which are unevenly distributed both in time and space throughout the country (Government of India, 2012). The fast-growing economy and the increasing demand of WATSAN services already brought the government to state that large parts of the country are already water stressed (ibid.).

The legal framework for WATSAN in India gives plenty of space to the state members to legislate upon the subject due to the fact that water legislation is an item that is not present in the "central list" of items on which the central government legislates upon with the only exception of trans-boundary water disputes (Gupta, 2004). Therefore, WATSAN management in India is characterized by local administration of the resources, which change accordingly to the state member and local municipal corporations.

3.2 COPRODUCTION OF SERVICES

Water and sanitation services are part of the wide spectrum of goods and services which are usually provided by a governmental entity. As Ostrom (1996) stated, in fifteen years of empirical case-studies on public goods provision there was not a single instance in which a good provisioned by a sole agent provided advantages as regards of: (I) costs; (II) better service or (III) a more efficient provision of the service.

Public goods are affected by issues of free-riding; opportunistic behaviour on the consumer's side and the issues in excludability of such users from the benefits of a public good. In order to address these issues the question on public service provision is still being addressed by research domains such as finance, public economy and governance to understand whether is more convenient for a governmental entity to provide the service, a private actor, or a mix of both (Bennett & Johnson, 1979). During the 1990s with the encouragement of the World Bank, a wave of experimentation on privatising water in developing countries was implemented in many countries of the global south (Hall, Lobina, & De la Motte, 2005) and was received by great opposition from different groups such as trade unions, consumers' organizations, water and environmentalists professional, and community organizations (ibid.). The main concerns were connected to the fact that the objective of water privatization is to achieve economic efficiency, by raising productivity and reducing costs of production (Parker & Kirkpatrick, 2005) which does not necessarily entail that public goods provision will result in a more efficient distribution of the service to a larger share of the population. Moreover, opening to market-driven strategies in water provision can result multinational strategies to target certain shares of population, basing not only on the concept of willingness to pay, but to the presence of financial assets to pay for the water services. As stated in Budds (2003, p.109) a number of multinational water companies have asserted that low-income populations are not an attractive market due to the fact that they are too poor to be profitable and represent a great financial risk.

Within the discourse on public services provision there is an undergoing theoretical debate in the body of the Workshop in Political Theory and Policy Analysis (Ostrom, 1996) about the coproduction of services. Coproduction is defined as the situation in which both the "provisioner" and the "customer" join their efforts in order to achieve the provision of the good or service. However, the challenges in setting up functional coproduction processes do not involve only the institutional level and its decisions. As previously introduced it is necessary to include the citizens in the process, due to the fact that the successfulness of coproduction depends on the degree of integration of the customers since they are crucial source of time-and-

place information (Oakerson, 1999, p. 16). Therefore, according to academic literature there are three main criteria to be met in order to establish functional coproduction processes: (I) first and foremost the community as a whole must achieve collective action behaviour towards the management of the resource and be involved in a collective choice process in which the preferences of the community are clearly stated (Oakerson, 1999; Ellinor Ostrom, 1996), (II) a high degree of coordination between the citizens and the governmental agency must be achieved (Ellinor Ostrom, 1996) and (III) clear rules, contracts, monitoring, accountability and the inclusion of the citizens in the decision-making processes will enable the coproduction process to be successful in the long term (Oakerson, 1999; Ellinor Ostrom, 1996).

It is important to note that coproduction does not imply the presence of external agents acting as facilitators between the customer group and the governmental agency neither is an intermediary agent required to prepare the customer group to be engaged in the process. In the case of developing countries, it may be arguable to include non-governmental organizations (NGOs) in the process. The reasoning is twofold: an NGO could facilitate the customer group to engage in a functional coproduction process with the governmental agency and can act as a facilitator between the two stakeholders. Further elaboration on NGO inclusion in governmental-driven WATSAN projects will be presented in section 3.4.

By reflecting on the discourse on coproduction and its characteristics, for the scope of this project 4 main conditions are deemed necessary to state if prospective coproduction processes for WATSAN can be established in Ahmedabad between the slum residents and the municipality with the help of an NGO acting as a facilitator: (I) an organized customer group involved in collective action processes to address WATSAN issues [Independent Variable]; (II) a capable NGO [Independent Variable]; (III) a high degree of coordination resulting from the customer group – NGO interactions, assumed to be influenced by I and II [Dependent Variable] and (IV) the presence of an institutional environment that might pose challenges or chances to successfully establish the process, coupled with the willingness of the governmental agency to cooperate with the customer group in a coproduction process [intervening variable].

The following sections will therefore introduce a set of capacities drawn out from academic literature that will be employed to address: (I) whether the consumer group (slum residents) are enacting collective action processes to address WATSAN issues; (II) assessing whether the NGO holds a series of capacities that are needed to interacting with the customer group; (III) assessing whether the interactions between the customer group and the NGO might result in functional coordination processes for WATSAN, by assuming that the set of capacities introduced in I and II do have an influence on the potential coordination and (IV) which influences are applied from the institutional framework to facilitate or block the establishment of functional coordination processes between the customer group and the NGO.

3.3 INDEPENDENT VARIABLE 1: CUSTOMER GROUP CAPACITIES TO ACHIEVE COLLECTIVE ACTION

The main character of WATSAN service provision, according to the literature, is that WATSAN services are not pure public goods, but can provide important public benefits, such as protection from infectious diseases (Budds, 2003, p. 93). For instance, when people dispose of their wastewater inappropriately, the community as a whole also bear the burden, moreover, once WATSAN infrastructures are established, it is uneconomic to exclude people who are not willing

to pay (ibid.). WATSAN services, being treated as a public good do not suffer from the issues of rivalry of use between individuals, but are still characterized by the issue of non-excludability. As such governmental failures to provide the services or of free-riding behaviour in the customer group in stealing water from governmental infrastructures might still arise. For these reasons it is deemed needed to create a set of rules that ensure individuals access to infrastructure, and use the infrastructure in an efficient manner. Said rules can be crafted at the institutional level, be produced by the community as a whole or, for the scope of this study, it is appropriate to think of rules being developed with the cooperation of the customer group. Hence the need of an organized customer group is a condition of utmost importance both in the general discourse on WATSAN service provision and access and for the possibility of establishing a coproduction process for WATSAN.

The author then assumes that if the customer group (the slum residents) enacts collective action behaviour to address WATSAN issues, there is a higher potential of coordination with the NGO on the subject, which then can act as a broker between the customer group and the municipality for prospective coproduction processes through means of high coordination with the customer group.

Ideally, as introduced in section 3.2, in order to establish a coproduction process the community as a whole must be engaged in collective choice processes as regards of the service that has to be produced. In order to engage in collective choice processes the communities must first achieve collective action processes towards WATSAN. Collective action processes, presumably lead to locally crafted rules and monitoring, and then usually outperform centralized, governmental-driven institutions because (I) there is a major focus on time and place information; (II) rules and their monitoring are enforced at a local level and (III) the community usually supports local institutional arrangements (Ellinor Ostrom, 2008).

3.3.1 CLARIFYING CUSTOMER GROUP CAPACITIES BY MEANS OF CLUSTERS

In order to achieve the goal of collective action for WATSAN issues, this study assumes that a set of capacities must be present within the customer groups to make them organized. The term “capacity” is commonly used in environmental and human development projects and agendas and can be referred as “*the ability of individuals, institutions and societies to perform functions, solve problems and set and achieve objectives in a sustainable manner*” (UNDP, 2008). Therefore, to ensure the clarity of the presentation of each set of variables, they are clusterized as follows: (I) group characteristics; (II) awareness; (III) willingness to invest time and money and (IV) organizational skills. The clusters of variables are drawn out or inspired by various literature sources; therefore each cluster will explain the underlying reasoning in including each set of variables.

Cluster 1: Group characteristics

The scope of the cluster is to investigate on the influence of WATSAN issues both in space and number of affected individuals, moreover it is relevant to understand which type of characteristics as regards of socio-economic indicators characterize the customer group, due to the fact that it might influence other factors such as the presence of leadership, awareness and willingness to invest money and labour.

The first cluster includes three independent variables: (I) small size; (II) clearly defined boundaries and (III) socio-economic indicators. The variables are drawn out from (Agrawal, 2001) on sustainable governance of water resources.

Cluster 2: Awareness

The awareness cluster can involve two main types of awareness: (I) perception of the problem and (II) priorities on WATSAN implementation.

First and foremost the cluster can be used to investigate whether the consumer group possesses a high degree of awareness on the WATSAN issues affecting their livelihood. This variable is drawn from a series of WATSAN related factors used by the WHO and IRC² (2003) to assess community participation in other WATSAN oriented projects.

The second type of awareness is inspired by the work of Oakerson (1999) on coproduction processes. According to the author a clear preference revelation about the type of service to be produced must be provided by the consumers. This type investigates whether the consumer group can clearly state its preferences or priorities about the implementation of WATSAN services in the area.

Cluster 3: Willingness to invest time and money

The third cluster is included in the assessment to investigate whether the consumer group is willing to contribute to WATSAN infrastructure upgrading through monetary or labouring means, the variable is inspired by WHO and IRC (2003). The inclusion of this cluster is deemed needed by the research due to the fact that coproduction implies community participation, which must also include some sort of monetary or labouring contribution from the consumer group.

Cluster 4: Organizational skills

The cluster investigates on the ability of the consumer group to self-organize and enact self-helping behaviour. The cluster holds several variables and they are as follows: (I) presence of a leader in the community; (II) presence of a community based organization; (III) presence of managerial capacities and training facilities; (IV) involvement in other WATSAN initiatives or projects.

Variables I and II are included in the assessment and are inspired by Agrawal (2001) and Ostrom (2000) due to the fact that in case of absence of spontaneous willingness to cooperate, the presence of a leader (or a CBO, for the scope of the study) who articulates different ways of organizing to improve joint-outcomes, is frequently an important initial stimulus (Frohlich, Oppenheimer and Young, 1971; Varughese, 1999 cited in Ostrom 2000, p.149.)

Variable III is included in the assessment to investigate whether the community is skilled enough, or has access to types of training that can be useful for prospective coproduction processes, the variables is inspired by WHO and IRC (2003).

² Listed among other factors in “Linking technology choice with operation and maintenance in the context of community water supply and sanitation”

Variable IV is included in the study, as it is assumed that a customer group that already has experiences in other WATSAN initiatives, or enacted self-helping processes to tackle the failures in the service delivery of WATSAN, the expertise deriving from past experiences can be useful for prospective coproduction processes for WATSAN. The variable is presented in a study for urban sanitation projects in north-eastern Brazil by Nance & Ortolano(2007).

By any means, it is likely that some of the independent variables included in these clusters might interact with each other, for instance the willingness to invest money might be affected by the degree of awareness on the issues or leaders against the idea of providing monetary contribution for infrastructure upgrading. Therefore the clustering of the independent variables must be seen as a conceptual way to present the analysis and disentangle as much as possible all the relations that the clusters and composing variables might have between each other.

The capacity assessment of the customer group will address whether the communities might engage in collective action processes for WATSAN, and will then be crossed with the NGO capacities (presented in section 3.4) to assess whether a high degree of customer group – NGO coordination is achievable, and in which way the capacities of the two stakeholders influence the overall potential for coordination.

3.4 INDEPENDENT VARIABLE 2: NGO CAPACITIES

As introduced in section 3.2 the second major condition is to achieve a high customer group – NGO coordination for prospective coproduction processes is the presence of a capable NGO that stimulates the development of collective action towards WATSAN in the customer group and that can act as a facilitator between the customer group and the municipality.

The underlying reasoning given for including an NGO instead of a private company as an external actor is based upon the assumption that NGOs are private actors concerned with public welfare goals (Clarke, 1998, p. 36). Moreover as Lee, (2004, p. 4) states, NGOs continuously challenge companies, governments and multilateral organizations to become more transparent and accountable. Therefore, it is assumed that an NGO is more likely to share common ground on the vision of delivering WATSAN provision to a larger share of the population, rather than a company which acts for profit-oriented reasons.

The presence of the NGO sector in governmental-driven WATSAN projects in India³ appears whenever community participation is important to achieve projects' goals (Manikutty, 1998). The type of activities outsourced to a NGO can be of different nature: select villages to participate in the projects, facilitate participation and acting as a communication node between the target groups and the government, helping in the procurement of goods and the construction organization (Prokopy, 2005, p. 1808), facilitating the creation of user groups such as village water committees for monitoring and enable the target group to make informed decisions, training on hygiene and financial management and monitoring that the service caretaker had access to spare parts and tools (Isham & Kahkonen, 2012, p. 673).

In order to reach its intended goal of empowerment for the customer group and facilitator, it is assumed that the NGO must hold a set of certain capacities.

³ Results based on governmental-driven projects in rural areas, due to the unavailability of urban WATSAN projects with NGO inclusion

The question therefore is: which capacities are needed at the NGO level to be able to successfully accomplish the tasks introduced above? The European Centre for Development Policy Management (ECDPM) warns stakeholders to not stop looking only at the formal capacities to deliver development results, such as technical and managerial competences (ECDPM, 2008, p. 2), instead, a complementary approach shall be pursued in order to address organisation and system behaviour (ibid.).

The ECPDM therefore developed a model with several core capacities. These core capacities are adapted for the purpose of this study in a series of independent variables that are composing the second variable of this study: “NGO capacities”. The variables are as follows

Variable 1: capacity to carry out service delivery and logistic tasks

The variable was established as a consequence on the reflection on core II of the ECPDM model and investigates on the efficiency on the organization of the work in the NGO and the presence and the functioning of service delivery approaches (ECDPM, 2008, p. 3).

Variable 2: capacity to adopt self-renew

The variable investigates which type of training and learning processes are employed by the NGO to improve the skills of its workforce and which are the strategies that the NGO wants to enact in the next future. The variable is inspired by cluster IV of the ECDPM capacities model (ibid.).

Variable 3: capacity to attract resources of support

The variable investigates how the NGO funds its projects and how it networks with other actors such as governmental agencies, other NGOs or private actors. The variable is drawn out from core III of the ECDPM model (ibid.)

The NGO assessment, as it is possible to assess from the three variables introduced above will mainly focus on the organizational and logistics factors that an NGO is supposed to possess in order to function efficiently. The next step of the study will assess whether the capacities of the customer group to address WATSAN issues, combined with the NGO capacities will result in (I) functional coordination processes and development of collective action towards WATSAN issues and (II) state if the NGO is ready to act as a facilitator between the customer group and the municipality to establish functional coproduction processes for WATSAN.

3.5 DEPENDENT VARIABLE: COORDINATION CUSTOMER GROUP - NGO

Coordination, as introduced in section 3.2 is an important element to ensure the establishment and the functioning of coproduction processes and it can be referred as *“the acts of making all the people involved in a plan or activity work together in an organized way”* (Cambridge University Press, 2012). As previously introduced, the academic literature on coproduction identifies the coordination processes as in between the customer of the service (the customer group) and the provisioner (the governmental entity). Since the study assumes that an NGO could prepare and empower the consumer group to achieve in the long-term the coproduction of services with the governmental agency, the coordination, for the scope of this study is intended as customer group – NGO.

Coordination can take different forms, for instance, it can be the capacity development of certain customer group capacities guided by the NGO, or alternatively, the NGO improving or creating new capacities according to the customer group needs. Since coordination is a product of the customer group – NGO interactions, is influenced by both the independent variables established in sections 3.3 and 3.4 and constitutes the main dependent variable of the study. To address the full operationalization and assumed influences of the two independent variables on the degree of success of coordination please refer to section 4.3.4.

The Coordination variable holds a series of indicators that are clusterized in 4 main areas of interest: (I) Meetings; (II) Communication; (III) mutual capacity development and (IV) institutional pressure. The underlying reasoning and source of inspiration for each cluster is as follows.

Meetings

The meetings cluster is included as part of the coordination variable to investigate whether the presence of (I-II) formal or informal meetings, (III) their frequency and the (IV) inclusion of key actors happen between the two main stakeholders to discuss on WATSAN. The variable was established as a consequence of the reflection on the types of interactions that the customer group and the NGO should establish in a logistic fashion in order to successfully discuss and tackle WATSAN issues. Due to the complexity of the issues, which comprise not only the discourse on infrastructure upgrading, but also policies, schemes and alternative solutions, it assumes that a structured set of meetings in which key actors are included are a condition of high importance in order to achieve high degrees of coordination.

Communication

The communication cluster investigates whether the relationship of the customer group and NGO is characterized high quality of communication and whether the customer group does have access to information about WATSAN initiatives through the NGO channels. The communication cluster, together with the data provided by the meetings cluster, will address whether the interactions between the two stakeholders result in mutual trust building. The variable is inspired by the work of Kay (2006), where the concept of “social capital” is linked to the development of collective action processes. According to the author social capital can be defined as *“that intangible something that exists between individuals and organizations within a community”* (ibid.) and can be defined as the glue that binds a community together and enables the development of collective action (ibid. p.166).

For the scope of this study the main interests in addressing social capital is to assess whether the communication between the two stakeholders results in mutual trust building.

Capacity development

The capacity development cluster is included in the assessment due to the fact that is expected that if coordination is a product of the interactions between the customer group and the NGO, and is influenced by the set of capacities of each stakeholder, it is then assumed that the presence of a feedback loop in the form of development of new capacities both at the customer group or the NGO level is likely to happen.

Institutional pressure

The institutional pressure variable is included in the assessment due to the fact that in case of a lacking institutional environment for proper WATSAN policies and schemes, it is assumed that the two actors, through forms of coordination are supposed to apply pressure on the governmental agency for a functioning institutional framework for WATSAN and better inclusion in the policy decision-making processes.

The assessment of the coordination dependent variable, for the scope of this study, is based on the underlying assumption that if high coordination between the customer group and the NGO is present, it is also more likely that in the long-term coproduction processes between the customer group and the municipality of Ahmedabad are more likely to be established. The underlying reasoning is that the two independent variables cover some of the capacities that could be useful in enacting coproduction processes, therefore the municipality might be more willing in establishing the process if an organized consumer group is present and an external agent acts as a facilitator.

3.6 INTERVENING VARIABLE: THE INSTITUTIONAL FRAMEWORK

The last, but by any means not less important, condition to help out the development of functional coordination processes between the customer group and the NGO and facilitating the establishment of coproduction of services for WATSAN between the customer group and the municipality is the presence of a functional institutional framework.

Institutions are defined by (North, 1991, p. 97) as “*humanly devised constraints that structure political, economic and social interactions, they consists of both informal constraints (sanctions, taboos, customs, traditions and codes of conduct) and formal rules (constitutions, laws, property rights)*”. The importance of institutions within the policy context, and especially in arrangements on the use of natural resource or the distribution of them is that a clear set of rules and norms can be crystallized in institutions and usually apply a positive influence on the reduction of the transactions costs and limit uncertainties. A similar concept related to the presence of a functional institutional framework is the “enabling environment”. The enabling environment is defined by the (UNDP, 2008, p. 5) as “*the broader system within which individuals and organizations function and one that facilitate or hampers their existence and performance*”. As the (OECD, 2011) states, the capacity development of individuals and organizations depends both on internal capacity factors but also on the external setting which is shaped by structural and institutional factors, as well as by other stakeholders.

The author then assumes that if a proper institutional setting for WATSAN is present in the area taken into account by the study, it is more likely that: (I) collective action behaviour towards WATSAN issues in the customer group will easily develop; (II) as a consequence of I the customer group can more easily establish coordination processes with the NGO; (III) a functional institutional setting for WATSAN will also result in an easier establishment of customer group – municipality coproduction processes.

For the scope of this study it is important to not overlook what is the institutional setting in which the customer group and the NGO have to interact in. Therefore the presence of a functional institutional framework is addressed, for the scope of this research, as an influencing factor.

The institutional environment will be analysed in:

1. presence of functioning policies and schemes for WATSAN targeted at the customer group;
2. past municipal projects, schemes related to WATSAN, to investigate if the municipality had a previous history of slum-improvement and if it still characterizes its vision;

It must be noted that the variable is treated as “intervening”, meaning that it is assumed that the influence of the variable on the two stakeholders and their potential coordination is constant and might influence (I) the overall successfulness of achieving coordination processes customer group – NGO and (II) the individual capacity development of each stakeholder. For this reason, the variable is not operationalized through means of separate variables and indicators.

3.7 CONCEPTUAL MODEL

As a consequence of the literature review three main cluster variables were established: the two independent variables “customer group capacities to overcome collective action dilemmas”; “NGO capacities” and the dependent variable “customer group – NGO coordination”. Additionally, an intervening variable is taken into account by this study: the institutional framework. The underlying reasoning in including this influencing factor is given by the fact that the two main stakeholders assessed by this study have to interact in an institutionalized context, composed by policies or schemes which might impose challenges or advantages in develop certain capacities needed to achieve functional coordination processes.

The visualization of the relationships between these variables and the overall potential for customer group – municipality coproduction processes is shown in Figure 2.

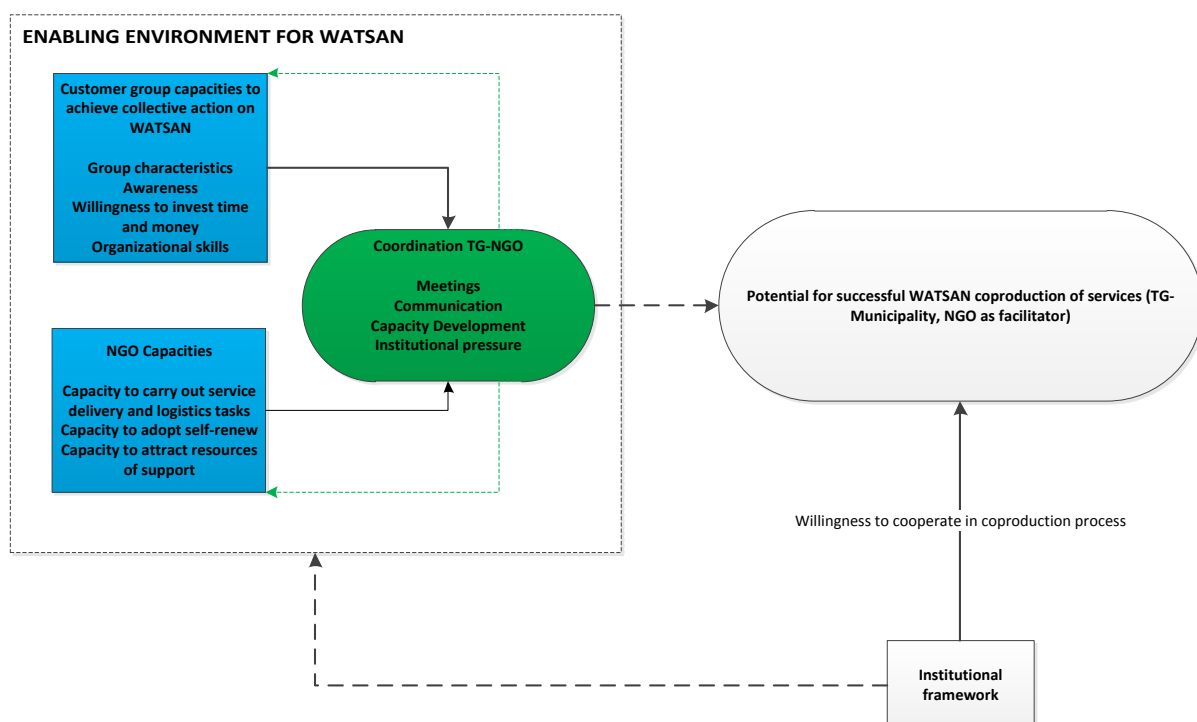


Figure 2: Conceptual model of the study, source: Author. Colours: Blue [Independent Variable]; Green [Dependent Variable]

The conceptual model must be read as follows: the customer group and the NGO must hold a series of capacities that if combined together might result in functional coordination processes. If a satisfactory degree of coordination between the two stakeholders is achieved it is more likely that the establishment of customer group – municipality coproduction processes for WATSAN services in which the NGO acts as a facilitator can happen. The coordination of potential successful WATSAN coproduction establishment is connected by a dashed line due to the fact that the inclusion of an external actor to promote the establishment of coproduction processes is an assumption made by the author; it has then to be verified by the results of the research. A feedback loop is also assumed in this section of the conceptual model, as it is possible to assess green dashed lines starting from the coordination dependent variable feed back to the two independent variables. The underlying reasoning on the choice is given to the fact that coordination processes between the customer group and the NGO should not be seen

as a mere potential by crossing the two stakeholders' capacities, but is also supposed to mutually develop the capacity of each stakeholder as a consequence of their interactions.

4 METHODOLOGY

4.1 RESEARCH STRATEGY

The research strategy employed in this research project is the "case study". A case study is a *"research strategy in which the researcher tries to gain a profound and full insight into one or several objects or processes that are confined in time and space"* (Verschuren & Doorewaard, 2010, p. 178). To specify it further, the case-study method will be employed in is "embedded case-study" fashion. The embedded-case study method employs one unit of analysis – in this case the slum communities of Ahmedabad – which is then sub-divided in smaller cases, the three slum areas taken into account by the research. The ultimate objective is to assess and interpret the results of analysis of the three sub-cases as if they were individual cases. After this first step is achieved, results between sub-cases can be compared in order to identify patterns, and provide guidance through a set of in-depth recommendations.

The case-study approach is a qualitative method of research; quantitative methods cannot be employed in such research strategy due to the fact that in order to achieve significant results more cases would need to be employed in the research (ibid.). Moreover due to the characteristics of the customer group, which is characterized by low literacy rates, and the time constraints in conducting large-N semi-structured questionnaires convinced the author to employ a more direct approach with the target communities, in order to catch more nuances in the respondents' answers. Due to these reasons, the data, especially in the case of the consumer groups' case, was triangulated. Please refer to section 4.4 to assess which methods of data gathering were employed in this study.

4.2 CASE SELECTION STRATEGY

The research projects assessed three case studies. During the proposal stage the cases were chosen according to these 3 main criteria:

1. An NGO had to be present at the local level with the intention to enact or be included in governmental-driven projects of WATSAN service delivery
2. The cases and issues must have had clear boundaries (e.g.: ward) which would simplify the selection process of the areas in order to conduct data gathering
3. The NGO must have had a tradition of TG empowerment, and not only service-delivery
 - a. This criterion was assumed on the fact that if the NGO had a tradition of TG empowerment it would have been easier to adapt and better understands concepts such as coproduction/collective action.

The following table summarizes the cases as they were presented by the NGO during the proposal stage.

Ward	Issue
Behrampura	Have water infrastrucure but no water pressure No proper sewage infrastructure People cannot enter the proper government infrastrucure schemes
Juhapura	No water pipelines in the area
Vasna	Lack of sanitation facilities

Table 1: List of cases and relevant issues as presented by Saath during proposal stage

No control-cases were selected (without NGO intervention) due to the fact that the core of the research is based on the assumption that having external actor intervention is useful in order to promote and develop coproduction processes in slum areas, which are characterized by several issues and political frailty. Finally, albeit the absence of a control group, the three cases can still be compared between each other in their potential coordination due to the fact that the NGO capacities remain constant but the consumer’s groups and issues are different.

4.3 OPERATIONALIZATION OF THE VARIABLES

Being a qualitative case-study type of research, it is quite difficult to adopt a universal scaling system that can explicitly state if, for instance, Collective Action in the customer group is present or not. Therefore, the approach that will be used in addressing the operationalization of variables will be factor specific, of which, overall, will contribute to the achievement of success in the coordination dependent variable. The following subsections will provide the needed explanations on why the indicators for each factor were chosen and how they place themselves within the scope of this research.

4.3.1 SCORING SYSTEM

As previously introduced the issues in assigning a precise grade to the presence or not of a factor and its overall influence on the possibility of establishing functional coordination and coproduction processes is a major challenge of this work and might pose issues in an easier comparison between cases.

Therefore, in order to provide a clear picture of the data gathered during the field-research phase, it was decided to simplify the reading of the results by assigning a “+” whenever one of the indicators composing a factor is present, a “X” whenever an indicator is absent and a “~” whenever the evaluation of an indicator did not provide clear or conflicting results. Therefore the scoring of each factor will have, in the form of a small table a column dedicated to the “Potential maximum score” that can be achieved on a factor and the “Score” that is achieved through the assessment. Explanations on the presence, absence, or no clear results on the indicator will be thoroughly explained in order to enable the reader to understand which are the main challenges and virtues encountered in each case study. The only exception of the

scoring system relates to the “Group characteristics” cluster in the “customer group capacities to achieve collective action for WATSAN” dependent variable, as the purpose of the cluster is to provide the author (and the reader) the information needed to contextualize the area to be assessed.

Scoring issues did not appear in the NGO assessment; nevertheless, to preserve the consistency of the work, the same scoring system was applied?

4.3.2 CUSTOMER GROUP CAPACITIES TO ACHIEVE COLLECTIVE ACTION

Factor	Source(s) of data
Small size	Interview with NGO

No additional indicator needed as the overview of the NGO or municipal documents are enough to address whether an area is of small or large size.

Factor	Source(s) of data
Clearly defined boundaries	Desk research

No additional indicators needed as the overview of NGO-Municipal documents are enough to state if an area has clear boundaries or not. The boundaries refer to the slum pockets in which the interviews were conducted and not on the ward, which implies different boundaries and also comprises non-slum areas.

Factor	Operationalization	Source(s) of data
Socio-economic indicators	Type of employment[CG1]	Group interview Desk research
	Number of people per household[GC2]	Complemented with personal notes
	Religion[GC3]	

For the socio-economic indicators a score is not needed due to the fact that the focus is to provide an overview on the type of population inhabiting the areas.

[GC1]: Needed to understand how variegated the workforce is in the communities, moreover provides information on which is the typical wage for a slum resident.

[GC2]: Needed to understand how the presence of employment in the slums and the subsequent wages has to be shared with a number of people within a household. Additional (speculative) information on the real economic picture for a slum household is gathered through this indicator.

[GC3]: Included in the research due to the fact that association to a certain religion might influence the priorities of the Municipal Corporation in enacting plans in the areas, as it was stated by the NGO during the proposal stage.

Factor	Operationalization	Maximum potential score	Source(s) of data
Perception of the problem	<p>Clear description of the problem[AW1] (+)/(-)/(~)</p> <p>Linkages to health hazards or water quality connected to WATSAN[AW2] (+)/(-)/(~)</p> <p>Alternatives to access to WATSAN[AW3] (+)/(-)/(~)</p>	+++	Group interviews

[AW1]: Included to understand how aware the residents are as regards of their WATSAN issues and if it poses a problem for them.

[AW2]: Reinforcement for AW1, making linkages to health hazard displays further knowledge on WATSAN issues and collateral problems connected to them.

[AW3]: Included to understand if the communities do have some other options to access WATSAN. The indicator is operationalized similarly to AW1; the main difference is that besides a clear description of the alternative, the residents are supposed to provide advantages and disadvantages on the options in accessing WATSAN from other sources.

Factor	Operationalization	Maximum potential score	Source(s) of data
Priorities for WATSAN implementation	Importance of WATSAN for TG[AW4] (+)/(-)/(~)	+	Group interviews

[AW4]: The factor is addressed after the “perception of the problem”. The idea is to understand if WATSAN is really a priority for the communities in the way they expose their problems and participate to the discussion. Due to the fact that the data is gathered through Group Interviews it was considered quite sterile to ask question such as “Is WATSAN important for you?” since the respondents would provide simple answers such as “Yes” without further elaboration. The indicator scores a (+) only in the case that the respondents make a clear statement on what is needed as regards of WATSAN services in the area.

Factor	Operationalization	Maximum potential score	Source(s) of data
Willingness to pay	<p>Presence of the financial assets within the community[WI1] (+)/(-)/(~)</p> <p>Willingness to contribute to project funding[WI2] (+)/(-)/(~)</p> <p>Willingness to pay for a water tax[WI3] (+)/(-)/(~)</p>	+++	<p>Group interviews</p> <p>Speculation as result of “perception with the relationship with the government” factor</p>

WI1-2 are self-explanatory indicators.

WI3 was included in the questions due to the fact that the Municipality might not be willing or is not ready in the next future to engage in a coproduction process, therefore the willingness to pay for a water tax was included to understand if the willingness to pay was still present.

Factor	Operationalization	Maximum potential score	Source(s) of data
Willingness to invest labour	Presence of skilled workers within the community[WI4] (+)/(-)/(~) Willingness to contribute to the operation and maintenance (O&M) phase of project implementation [WI5] (+)/(-)/(~)	++	Group interviews Speculation as result of “perception with the relationship with the government” factor

[WI4]: Included to understand if the residents do have technical or managerial skills that could be useful to engage in a meaningful coproduction process with the municipality.

[WI5]: Included to understand if the communities are interested to participate in Operation & Maintenance phases of project implementation.

Factor	Operationalization	Maximum potential score	Source(s) of data
Appropriate leadership	Presence of a leader figure[OR1] (+)/(-)/(~) Age of leader[OR2] (+)/(-)/(~) Connection with institutions and external actors[OR3] (+)/(-)/(~) Election processes[OR4] (+)/(-)/(~) Ability to shift to changes[OR5] (+)/(-)/(~) Decision enacted by the leaders are supported by the community[OR6] (+)/(-)/(~)	+++++	Group interviews

OR1-6 are a series of indicators needed to investigate the presence of a community leader and the legitimacy of the leader’s actions according to the respondents answers.

Factor	Operationalization	Maximum potential score	Source(s) of data
Presence of a community based organization (CBO)	Presence of a Community Based Organization (CBO)[OR7] (+)/(-)/(~) Perception of the representativeness of the CBO[OR8] (+)/(-)/(~) Is the CBO legally recognized by other relevant stakeholders (NGO and Municipality) [OR9] (+)/(-)/(~) Connections with institutions and external actors [OR10] (+)/(-)/(~) How the CBO was established [OR11] (+)/(-)/(~) Ability to shift to changes [OR12] (+)/(-)/(~) Decisions enacted by the CBO are supported by the community [OR13] (+)/(-)/(~)	+++++++	Group interviews

The OR7-13 indicators are operationalized in a similar way to the “appropriate leadership” ones, but applied on the presence of a Community Based Organization.

Factor	Operationalization	Maximum potential score	Source(s) of data
Managerial capacity and training	Presence of training within the community[OR14] (+)/(-)/(~) Types of training (technical; managerial etc.)[OR15] (+)/(-)/(~)	++	Group interviews

[OR14]: Included to investigate whether the community has access to training facilities in which they can develop their informal work skills or receive managerial training.

[OR15]: Subsequent analysis on OR14, investigating on which types of trainings are offered in the area to the slum residents.

Factor	Operationalization	Maximum potential score	Source(s) of data
Self-mobilization	Involvement of TG in other WATSAN initiatives[OR16] (+)/(-)/(~)	+	Group interviews

[OR16]: Included to understand if the residents already have experiences on WATSAN projects that might be useful to establish functional coproduction processes with the municipality.

4.3.3 NGO CAPACITIES

The NGO capacity assessment will be mainly based on the instrument that Saath uses to interact with the slum communities: the Urban Resource Centre. More information on the instrument can be accessed in section 7.2 of this work.

Factor	Operationalization	Maximum potential score	Source(s) of data
Capability to carry out service delivery & logistics tasks	Organization of the work within the NGO[ORG1] (+)/(-)/(~) Service delivery[ORG2] (+)/(-)/(~)	++	Interviews with URC staff Desk research

[ORG1]: Investigates on the size of the staff, division of the work, frequency of reports to Saath.

[ORG2]: Looks into the service delivery activities provided by the URCs to the slum communities

Factor	Operationalization	Maximum potential score	Source(s) of data
Capability to attract resources of support	Funding[ORG4] (+)/(-)/(~) Networking[ORG5] (+)/(-)/(~)	Funding: no score +	Interviews with directors of Saath Desk research

[ORG4]: Investigates on how the URCs can be self-sustainable under an economical aspect: which are the sources of funding, how is the ratio of external funding/revenues from URC activities. It must be noted that to the funding indicator a score is not assigned due to the fact that the main interest is to discover which the sources of funding are.

[ORG5]: How the URC is connected to the governmental agencies, other Saath's programs and other NGOs/Relevant stakeholders.

Factor	Operationalization	Maximum potential score	Source(s) of data
Capability to adopt self-renew	Learning processes/training[ORG6] (+)/(-)/(~) Ability to shift in times of change[ORG7] (+)/(-)/(~)	++	Interviews with URC staff Interviews with Saath directors

[ORG6]: investigates if the URC staffs are trained, in which way, which are the selection criteria to be part of an URC staff

[ORG7]: investigates on how the URCs shift their priorities according to new TG needs by providing additional services or linkages to other TG-empowerment programs.

4.3.4 CUSTOMER GROUP - NGO COORDINATION

The tables below summarize the four main clusters characterizing the coordination between the customer group and the NGO. Due to the fact that it is assumed that coordination is a product of the capacities of both stakeholders, whenever possible the relation of a coordination indicator is related to a relevant independent variable presented in the two cluster variables “customer group capacities to achieve collective action” and “NGO capacities”. To preserve the clarity of the reading each cluster is separated from one another and the relation to the variables assessed at the customer group and NGO level are explained.

Area of interest	Indicator/Code	Present/Not present	Relates to (factors of independent variables)
Meetings	Presence of formal meetings to discuss about WATSAN issues and related initiatives [CM1]	Yes/No	Appropriate Leadership (customer group) Presence of a CBO (customer group) Organization of the work within the URC (NGO)
	Presence of informal meetings to discuss about WATSAN issues and related initiatives [CM2]	Yes/No	Organization of the work within the URC (NGO)
	Frequency of meetings [CM3]	Yes/No	Organization of the work within the URC (NGO)
	Presence of key actors [CM4]	Yes/No	Appropriate Leadership (customer group) Presence of a CBO (customer group) Organization of the work within the URC (customer group) Capacity to adopt self-renew (NGO)

[CM1]: the indicator investigates whether the two stakeholders organize themselves in a way to meet in a formal, structured setting to address WATSAN issues and related initiatives. The relations with some of the factors are considered as follows: it is more likely that formal meetings are organized if the customer group is represented either by a leadership figure or by a CBO. At the same time the URC should organize, with mutual cooperation with the customer group the formal meetings, which has to be reflected in the organizational culture of the URC.

[CM2]: This second indicator mainly relates with the organizational culture of the NGO. The main question is whether URC also includes the possibility of meeting in a more informal setting to discuss about WATSAN issues and related initiatives.

[CM3]: The frequency of the meetings, either formal or informal is mainly reflected in the working culture of the URC.

[CM4]: The indicator addresses whether the meetings between the two stakeholders involve the presence of key actors, such as leaders or representative from CBOs. Therefore the indicator relates to the presence of the leadership figures in the consumers' groups and whether the organizational culture of the NGO is based on a comprehensive inclusion of relevant stakeholders of the customer groups.

Area of interest	Indicator/Code	Present/Not present	Relates to (factors of independent variables)
Communication	Both parties (customer group - NGO) are satisfied with the quantity of the communication [COM1]	Yes/No	
	Both parties (customer group - NGO) are satisfied with the quality of communication [COM2]	Yes/No	
	TG received an orientation on WATSAN initiatives [COM3]	Yes/No	Capacity to adopt self-renew (NGO)

The cluster investigates mainly to which degree the communication between the customer groups and the NGO can be considered satisfying for both stakeholders. It must be noted that in the process of operationalizing the indicators a bigger weight was given to the consumers' groups' answers, due to the fact that the NGO might have been biased in stating how effective their communication channels were.

[COM1]: Investigates whether the two stakeholders are satisfied in the number of times they interact with each other

[COM2]: Investigates whether the two stakeholders are satisfied in their way of interacting between each other, and if the interactions result in mutual trust-building.

[COM3]: Investigates whether the URC provides relevant information on WATSAN initiatives or schemes that might help the consumer groups to overcome their issues. The main relation with the dependent variable factors is linked to the capacity to adopt self-renew in the NGO. The connection underlies the assumption that trained figures able to address WATSAN issues must be present in the NGO in order to provide relevant information to the customer group.

Area of interest	Indicator/Code	Present/Not present	Relates to (factors of independent variables)
Capacity development	NGO develops leadership in customer group, if absent [CD1]	Yes/No	Capacity to adopt-self renew (customer group)
	Customer group stimulates the development of new NGO capacities according to their needs [CD2]	Yes/No	Priorities in WATSAN implementation (customer group) Appropriate Leadership (customer group) Presence of a CBO (customer group) Capacity to adopt-self renew

The cluster investigates whether the interactions between the two stakeholders result in mutual capacity development.

[CD1]: Investigates whether the NGO tries to develop leadership figures for WATSAN in the consumer group. The indicator is linked to the capacity to adopt self-renew due to the fact that it implies the capacity of the URC to react to the consumer group needs and help them organize themselves to achieve self-representation on their issues.

[CD2]: Investigates whether the consumer groups make clear preferences revelation on the type of WATSAN bureaucratic aid they need from the NGO. The indicator is strengthened by the presence of appropriate leadership and a CBO in the consumer groups. The URC capacity to adopt self-renew is considered relevant for the success of this indicator since it implies the readiness of the URC to tailor itself according to the consumer's group needs.

Area of interest	Indicator/Code	Present/Not present	Relates to (factors of independent variables)
Institutional pressure	Customer group and NGO can jointly act together as a pressure group towards institutions for better WATSAN policies	Yes/No	Appropriate leadership (customer group) Presence of a CBO (customer group) Organization of the work within the URC (NGO)

The indicator addresses whether the two stakeholders are ready to act as an institutional pressure group towards the municipality in requesting a better institutional framework for

WATSAN. For the scope of this indicator the absence of leadership or CBOs is not taken as an option: the customer group must have some sort of self-organization or representatives to better coordinate with the URC in acting as an institutional pressure group.

4.3.5 CORRELATIONS AND CAUSAL MECHANISMS

This study, through the analysis of the capacities deemed relevant at the customer group and NGO level, will try to assess if there are correlations between the presence of the capacities of the stakeholders and their influence on the successfulness of achieving functional coordination. The correlations are assumed prior to the data gathering phase, therefore it will either be confirmed or disconfirmed with the final results of the study.

4.4 DATA COLLECTION AND ANALYSIS

In order to conduct this study several sources of data were employed during the data gathering phase of this research and were triangulated to provide more reliable results:

- Group interviews with the communities living in the slums
 - Approximately 97 respondents were reached out (on household basis in group meetings), the number of attendants would greatly vary according to the slum areas
 - Two separate sets of interviews per each round, to assess which questions were posed to the respondents please refer to the appendix section of this study
- Interviews with the URCs coordinators and field workers
- Interviews with the directors of Saath
- Interviews with three municipal officers
- Desk Research Observations on the field
- Participant observation during the interview rounds, brainstorming post-interview, notes about the meetings and information gathered through brief discussion moments about the research with Saath's staff

The possibility of conducting Semi-structured-questionnaires on a household basis was scrapped due to the fact that since the residents living in the slums have low literacy rates, it would have posed more of a challenge rather than providing clear answers. Moreover the approach of conducting group interviews (also called “open talks”, please refer to section 4.4.2) demonstrated to be of paramount importance to have access to better quality of data, which was overall, a major challenge during the data gathering phase (please refer to the Discussion section on the data quality).

4.4.1 STEPS INVOLVED IN DATA GATHERING

The data gathering for this project was conducted from the 3rd of December 2012 to the 15th of March 2013.

This phase of research was characterised by several steps which are summarized in the flowchart below, explanations on the steps will follow after Figure 3.

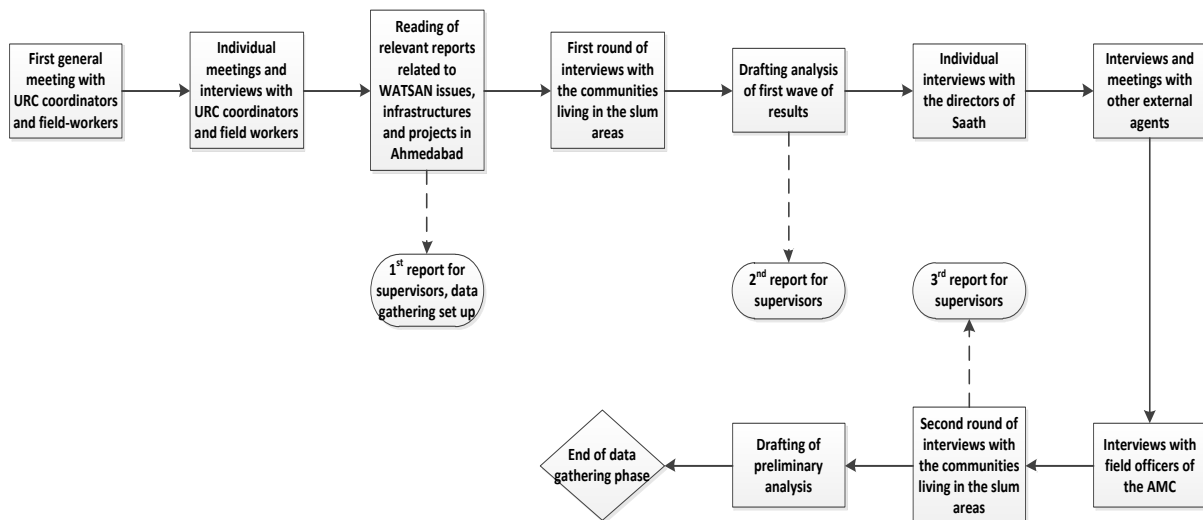


Figure 3: Data gathering steps

The first step involved a general meeting with all the Urban Resource Centres (URCs) coordinators and field workers, the main focus was to present the project's objectives and to gather some preliminary information about the three areas selected for the study.

Consequently, the second step consisted in organizing three separate meetings with the URCs and their staffs; the main objective of this step was to conduct the assessment of the URC instrument (NGO capacities).

The third step was conducted at the same time of the first two during the month of December, the main focus was to have access to data that was not available through academic literature and which would provide useful information on how to set up the data gathering.

In January the data gathering continued with a first round of group interviews with the communities living in the slums, this step involved gathering data useful to evaluate the "Target Group capacities to overcome collective action dilemmas" variable.

Interviews with the executive, program and associate directors of Saath were also conducted (fifth step) in order to better understand which are the challenges of the URCs and what is the strategy of the organization as regards of WATSAN projects, improve the URCs, connections with the governmental agencies and so on.

As a consequence of the gathered data in step five, meetings with other external agents (a student project at the CEPT University and Sangath foundation) on slum-improvement projects with community participation were also held, to discover new or different perspectives on the issues tackling the slum-residents and which strategies could be adopted by external agents to improve their livelihoods.

In February the last three steps of the data gathering took place: three interviews with local municipal officers were held in order understand the governmental perspective on the areas; a second round of interviews with the communities were conducted in order to better understand the quality of the relationships between customer group-NGO-Municipality as regards of the WATSAN issues and finally, the preliminary analysis of the variables and factors was drafted.

4.4.2 THE OPEN TALKS AND THE CUSTOMER GROUP

As introduced in section 4.4, group interviews were preferred as a data gathering instrument instead of semi-structured questionnaires. Although the approach is self-explanatory, due to the context and cultural differences there was no other option to complement the information gathered through the interviews with notes on personal observation on the areas and the mechanics of interaction between the author, the translator and the communities.

Said approach is called “participant observation”, which is more bound to the domains of ethnographic studies, participation observation can be defined as: *“a process in which the observer’s presence in a social situation is maintained for the purpose of scientific observation [...] the observer is in a face-to-face relationship with the observed, and by participating with them in their natural life setting, he gathers data[...] the observer is part of the context being observed and he both modifies and is influenced by the context”* (Schwartz M.S. & Schwartz C.G., 1955, p. 344).

As Schwartz & Schwartz further elaborate, the observer can either be formal or informal and revealed or concealed. In the case of this study an informal but concealed approach was preferred, the TGs felt more open to discuss about their issues and disclosed as much information they could with the author and the translator.

Although the approach could be classified as informal, it does not imply that the interviews were not structured, in the Appendix section of this work it is possible to assess which kind of questions were asked to the TGs in two separate rounds of interviews.

In practical terms the interviews would be conducted in this way: the author, a translator and a field-worker of the URCs would visit the areas. The field worker would gather several household in an open air spot outside one of the houses to talk about WATSAN issues. The real interviewing then would begin, opening with the question “do you have/which kind of problem connected to WATSAN?” the discussion would then continue by following the flow of the information provided by the respondents, and making sure that all the questions were asked by the end of the interview.

A very common dynamic during the group interviews was the presence of “thought leaders”, meaning that whenever a question was asked one person would speak up and the others would simply agree. Due to this reason, the questions were posed more than once to the respondents attending the interview, but the answers would not produce any more detailed information. Therefore, whenever possible the analysis will report the number of respondents that clearly stated or made a difference to the analysis of an indicator.

A final point about the group interviews is about the gender balance: almost all the respondents were female, due to the fact that the male population is outside to work for the whole day. Fortunately, some men were present at the interviews and provided useful data as regards of the legal or organizational challenges in regards of WATSAN.

All the interviews were always concluded with some brainstorming with the translator by looking at all the questions in order to assess if some information that was probably not translated during the discussion flow was missing.

For further information about the data quality and its challenges please refer to the discussion section of this paper.

5 WATER AND SANITATION IN AHMEDABAD

The city of Ahmedabad is composed by 64 administrative wards distributed over the river banks of the Sabarmati River. As of today the total area of the city accounts for 466 sq. km. The city can be divided into two main blocks: Eastern and Western Ahmedabad. The eastern side of the city is the “old” city, whereas the western side is the “new” city. The growth in size of Ahmedabad up until the 1980s was mostly focused in the old city, after the 1980s a shift was experienced and the expansion in the west and peripheral areas also began (UMC, 2012).

The city as of today accounts approximately 5.7 million citizens (Census organization, 2011), of which approximately 14.3% (815100 individuals) are slum residents (UMC, 2012). The number of slum pockets present as of 2012 is 772 (ibid.).

5.1 WATER PROVISION

Ahmedabad’s water provision system through pipelines is began at the end of the 19th century, at that time surface-water was the main source and over the first half of the 20th century the system was augmented to satisfy the growing demand (ibid. p. 39). During the 1960s-2000s the city switched to a heavier provision from groundwater sources, resulting in a depletion of 3-4 meters of groundwater level per year (ibid.).

In order not to further diminish the groundwater sources; from the 2000s onwards the Ahmedabad Municipal Corporation (AMC) began new plans to gather more water from surface sources: swater from the Shedhi Branch of Mahi Canal and Narmada canal was channelled into the Sabarmati River, and the Dholka Branch of Narmada Canal was used to source water for the newer parts of western Ahmedabad (ibid., 40).

The figure in the next page, extracted from the UMC report of 2012 summarizes the shares of water sources over the recent history of the city.

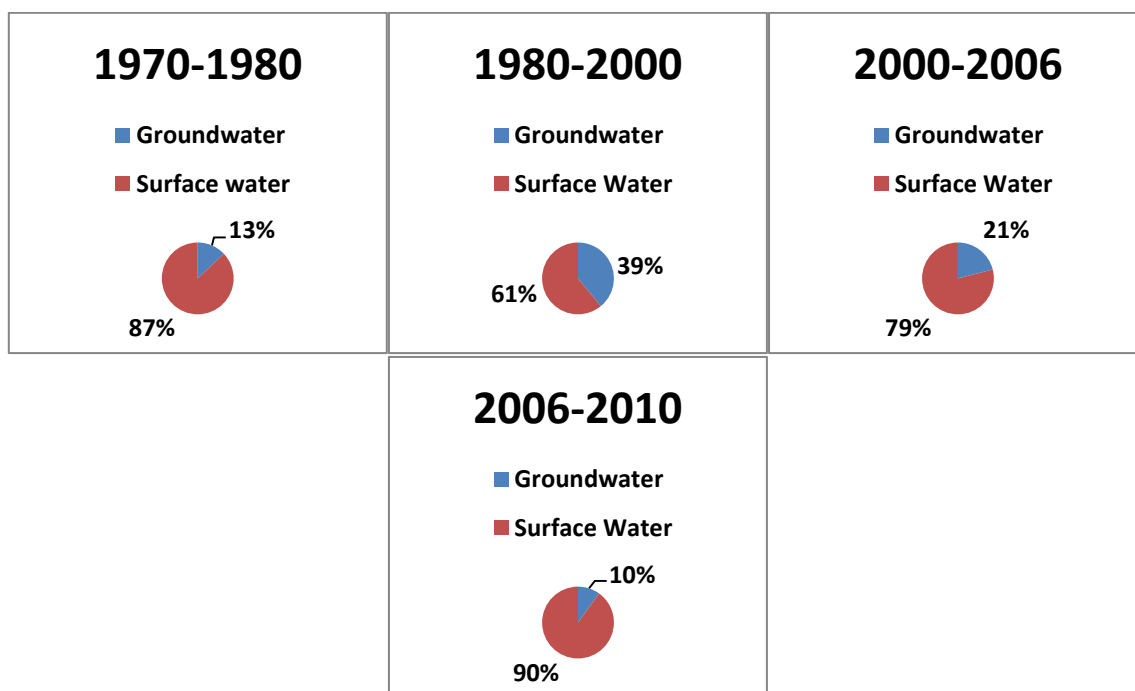


Figure 4: Sources of water provision in Ahmedabad, retrieved from UMC (2012).

5.2 SANITATION PROVISION

Overall, as regards of sanitation facilities the municipality is organized in the following way: (I) efforts provided in achieving 100% coverage of individual toilet facilities and (II) where not applicable, providing public toilets.

Overall, the municipality states that non-slum households all possess an individual toilet (UMC, 2012, p. 59). In the case of slum households – out of the 182000 households present as of 2012 – 28.5% still does not have access an individual toilet.

As previously introduced the AMC also provides public toilet facilities, two types are present: (I) community toilets and (II) pay-and-use toilets. Community toilets are usually located in slum areas and do not require a fee to be used. On the other hand, pay-and-use toilets as the name implies charge 2INR per use but also have bathing facilities, besides toilet seats (ibid. 59).

In the city 1840 community toilet blocks, counting 7211 toilet seats are present throughout the city, out of these blocks, 84 (329 seats) are non-functional (ibid.), the number of customers of the community toilets counts up to 180000 per year (ibid.) The number of pay-and-use toilet blocks is 590, counting up to 2354 toilet seats and 807 bathing units (ibid.), the number of customers per year reaches 60000 users (ibid.).

None of these municipal solutions for sanitation facilities include child friendly public toilets, giving no options to the children but to defecate in the open (ibid. 62).

The UMC concludes that generally the construction techniques, materials and design standards are: *“in dire need for revision as the current public toilets lack natural or artificial light and ventilation while providing very cramped space to its users”* (ibid.).

5.3 SLUM IMPROVING POLICIES IN AHMEDABAD

As previously stated in this work, Ahmedabad is characterized by the presence of 772 slum pockets across the city, mostly concentrated in the South zone and new West zone, constituting 74% of the total slum population in the city (UMC, 2012, p. 37).

Several slum improving projects were enacted by the municipality in the past decades, here below a small summarization table displays the main programs and effects, adapted from various sources of literature.

Program	Main stakeholders	Year	Main Objectives
Slum Clearance	Gujarat Slum Clearance Board	1970s-late 1990s	Constructing formal housing for low-income groups; upgrading conditions of present slums
Environmental Improvement of Urban Slums (EIUS)	AMC		Improving infrastructures; promoting community development
Urban community development program (UCD)	AMC		
Urban Basic Services for the Poor (UBSP)	AMC		
Slum Improvement Partnership (SIP)	Various		Infrastructure upgrading and integrating the slums in the city's infrastructure; access to financial mechanisms for the slum residents
Slum Networking Project (SNP)	AMC + Arvin Mills ltd. + Saath		Refer to section 5.3.1
500 NOC Scheme	AMC		Refer to section 5.3.2

Table 2: List of implemented policies for WATSAN adapted from (Bhatt, 2003; UMC, 2012)

The information over the SNP and the 500 NOC scheme can be addressed in the next 2 sub-sections. The decision to introduce the last 2 initiatives in separate sub-sections was based on two criteria: (I) The slum networking project was a very successful project which shares many elements of coproduction, but was and still is discontinued; (II) the 500 NOC scheme is the only policy as of today that might guarantee WATSAN provision to the slum residents, but it is not as effective as it is on paper.

To preserve the clarity of the study, the reflections on these two policies will be addressed in section 9 of this paper, as a part of the possible influences of the institutional context on WATSAN subjects.

5.3.1 THE SLUM NETWORKING PROJECT

The Slum Networking Project (SNP) was a program commenced by the AMC in September 1995 together with the cooperation of the NGO sector, private actors and the slum communities (Chaturvedula S. and Bedushruti S., 2012).

The focuses of the program were to improve the social and economic lives of the slum dwellers by providing a package of basic infrastructure services such as WATSAN connections, storm water drainage, solid waste disposal, paved roads, street lights and landscaping (Baruah, 2010,

p. 1016). Besides the infrastructure upgrading the project aimed to facilitate community development and build up a city-level organization for slum networking and infrastructure development (Chauan and Lal 1999 in Das & Takahashi, 2009, p. 217). Moreover, the pockets involved in the SNP are guaranteed not to be evicted from the area for 10 years⁴ (Das & Takahashi, 2009, p. 227).

Several stakeholders were included in the pilot of the project: the private firm Arvind Mills; the NGO arm of Arvin Mills (SHARDA); Saath and SEWA as independent NGOs and an independent consultant (Himshu Parikh, the originator of the slum networking concept). Other relevant stakeholders were the community residents of Sanjay Nagar and a CBO created for the purpose of the project with the help of Saath (Das & Takahashi, 2009, p. 218). The table below, reported in Das & Takahashi (2009) summarizes the main role and activities of each relevant stakeholder.

Stakeholder	Role and Activities
AMC	Project planning/design
	Financing project (largest share of total expenses)
	Physical upgrading
	Regulatory oversight
Arvind Mills (private firm)	Financing for project (second largest share of total expenses)
SHARDA trust (NGO arm of Arvind mills)	Primary project coordinator Community development objective (successively transferred to Saath) Financing for construction via loan from Arvind Mills Financing for community residents for power connections
Independent NGOs	Microfinance for residents contribution (SEWA bank) Provide social/soft services (Saath) Provide training to CBOs (Saath)
Independent consultant	Technical innovation with low-cost design and construction of physical services
Community residents	Monetary contribution (second largest share of total expenses) Participation in construction monitoring
CBO (Sanjay Nagar residents)	Recruit and expand residents monetary contribution Resolve disputes in demolitions, monitor construction

Table 3: Main stakeholders and activities for the SNP pilot, as reported in (Das & Takahashi, 2009, p. 218)

The project costs on a household basis were of 7580INR per involved household. Out of these costs, 2000INR were provided equally by the AMC, Arvind Mills and the slum household whereas the remaining shares, used for physical surveying; design and consultancy; establishment; community development and community fund for maintenance of infrastructure services (Dutta, 2000, p. 22). Whenever a household could not provide the 2000INR contribution to the project they could ask to SEWA a microcredit loan that would be used for the project's objectives.

The results of the SNP were satisfactory, the number of households improved with the program were, by the end of 2006, 4940 (Chaturvedula S. and Bedushruti S., 2012, p. 4) and was endowed with the Dubai International Award for best practices in 2006 (Dubai Award, 2006).

⁴ This is what the AMC officers, slum residents and NGO workers call as "Notification" of the areas.

It is not clear whether the SNP is at the moment on hiatus⁵ or in a new phase of physical surveying to establish which slum pockets shall be included in the next wave of the SNP⁶.

The presence the SNP in Ahmedabad provides some insights on the management culture of the slum pockets in the first decade of the 2000s. From the review of several academic articles on the subject and personal interviews with the directors of Saath (which was involved as one of the main stakeholders) it was tangible that the SNP shares many factors that can relate to coproduction, such as: involvement of the community in the monitoring of the infrastructure upgrading, equal share of monetary contribution on a household basis for the successfulness of the project, external agents involved to provide services for TG empowerment and training.

5.3.2 THE 500 NOC SCHEME

The 500 No Objection Certificate (NOC) is the only available scheme provided by the municipality of Ahmedabad at the time of the assessment. The purpose of the scheme is to enable the customers to apply to legal sewage and water connection for their household. The number 500 indicates the amount of rupees to be paid by the household to apply for the scheme. The scheme was introduced in 2002 (UMC, 2012).

The NOC scheme is composed by several straightforward steps and they can be summarized as follows:

1. The house should be of no more of 40 sq. metres
2. The applicant should have some type of residence proof (ration card, voter ID, any kind of tax or bill)
3. 10 INR form to be filled together with a residence proof at the ward office
4. 500 INR to be paid at the ward office, the AMC takes care of paying the other 1500 INR
5. AMC officer visits the household and begins the sketching plans
6. IF the household passes the evaluation of the AMC officer two different scenarios appear
 - a. Connection to the AMC infrastructure system for WATSAN
 - b. Legalization of illegal connection

⁵ According to the program and associate director of Saath

⁶ According to the AMC officer of Behrampura

6 CUSTOMER GROUP CAPACITIES TO ACHIEVE COLLECTIVE ACTION

6.1 VASNA

The Vasna area is located in the west sector of Ahmedabad (AMCweb, 2012), it is composed by approximately 800 households and accounts up to 4000~ residents⁷.

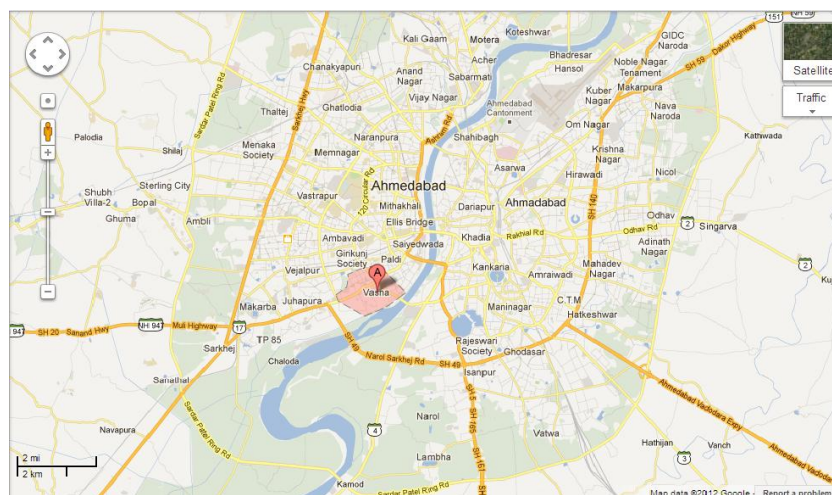


Figure 5: Vasna area, retrieved on Google maps (2012).

For the investigation purposes the most affected pocket of the area is Yogeshwanagar. In this part of Vasna only 50% of the residents have access to water provision; moreover the access to sanitation facilities is low, resulting in open defecation behaviour by the residents. Overall the coverage of sanitation facilities (outside of Yogeshwanagar) is present, but it does not achieve 100% coverage.

In total, approximately 30 respondents were reached out over the course of the data gathering; most of the respondents were female albeit in a couple of occasions some men participated in the conversations. The respondents were reached out in two separate rounds of interviews: a first round of 12 households and a second round of 18 households. The names of the two visited pockets were respectively Division 1 and Shaktinagar.

6.1.1 GROUP CHARACTERISTICS

Factor
Small size

Yogeshwanagar is not a small pocket since it includes approximately 800 households, counting up to over 4000 residents living in the area.

Factor
Clearly defined boundaries

The boundaries of the area are clearly defined, besides being part of the bigger ward of Vasna; Yogeshwanagar is a delimited slum pocket that stands in between other small areas which do not suffer from WATSAN provision shortages.

⁷ Estimate provided by the URC Vasna Coordinator Devben, based upon the fact that on average a household is composed at least by 3-4 individuals.

Factor	Operationalization/Codes
Socio-economic indicators	Type of employment[CG1]
	Number of people per household[GC2]
	Religion[GC3]

[GC1]: As stated by the 12 female respondents in the first round of interviews unemployment is one of the major issues in the area. Female unemployment is higher compared to male unemployment, but the lack of jobs negatively affects the livelihood of the families in the area.

Most of the men work in the informal sector⁸, which does not provide a stable income to sustain the households.

[GC2]: The families, on average, are composed by 4-5 individuals⁹

[GC3]: Vasna is an area composed mainly by Hindu residents. Within the scope of this research no respondent implied that the area is overlooked by the municipality due to the association with a certain cult.

6.1.2 AWARENESS

Factor	Operationalization/Codes	Maximum potential score	Score
Perception of the problem	Clear description of the problem[AW1]	+	+
	Linkages to health hazards or water quality connected to WATSAN[AW2]	+	+
	Alternatives to access to WATSAN[AW3]	+	+

[AW1]: The respondents, in both rounds of interview engaged in clear descriptions of their WATSAN problems. It must be noted that the first group of respondents (12) since 7 months has official access to WATSAN facilities provided by the municipality. Nevertheless, when asked about their past issues with WATSAN the problems were unreliability of the water provision and the absence of sanitation facilities (individual and in the area). Most of the time the respondents would apply for the “private contractors” in order to have access to WATSAN services.FALTAS

The second group of respondents (18) was characterized by different issues: they do have sanitations facilities at home but water provision is unreliable, forcing the residents to fetch water at the beginning of the ward from an AMC fountain. The provision of the service lasts on average, 2 hours per day.

The indicator scored a full (+), the problem was clearly described and linkages to other issues were made as it will be possible to assess in AW2-AW3.

⁸ Plumber, construction worker and other physical-intensive jobs

⁹ As stated by the URC coordinator Vasna

[AW2]: The assessment of this indicator is based on the second group of respondents, as the first group did not complain about the quality of the provisioned water. In the second group, 3 female respondents stood up to state that they do have water provision at home, albeit unreliable. Nevertheless for cooking and drinking they do not use the tap water due to the fact that is of “bad quality” and “not suitable for cooking”. The statement was agreed from the other female respondents in the group.

For these reasons, the indicator scored a full (+)

[AW3](+): The residents, as they stated, only have 2 alternative for WATSAN access: (I) private¹⁰ contractors; (II) the NOC scheme. The first “alternative” cannot be considered as it is illegal and not reliable in the long term. As regards of the 500 NOC, 2 men knew about the scheme and allegedly applied for it. At the time of the interview they were still waiting for the initial surveying from the municipality. As the two respondents stated, the municipality justified its behaviour basing itself on the fact that the whole lane should apply to the NOC, and then the surveying process should begin, it must be noted that the UMC report does not state that the NOC scheme works per area/lane, but on a household basis (UMC, 2012, p. 38).

Due to the very detailed information provided by the respondents as regards of their bureaucratic issues, the indicator scored a full (+).

Factor	Operationalization/Codes	Maximum potential score	Score
Priorities for WATSAN implementation	Importance of WATSAN for the TG [AW4]	+	+

[AW4]: The preferences of the group as regards of WATSAN were explicitly expressed by the respondents. The first group of respondents is less relevant as regards of the assessment due to the fact that it was evident that having WATSAN services at home was already an achievement, regardless of the quality.

The second group of respondents elaborated more on the priorities in the area; at this point of the group interview the two men were monopolizing the discussion¹¹. It was stated that basic WATSAN facilities are still needed on a household basis. Moreover, the group of respondents, being characterized by the NOC incident with the municipality, expect the scheme to be implemented since some of the households in the area already paid the fee for the scheme.

The indicator scored a full (+) due to the fact that the respondents explicitly expressed their needs as regards of WATSAN, leaving little to no room for speculation.

¹⁰ Services provided by individuals who either (I) steal water from the municipal infrastructures or (II) build a system of pipelines that directly feed from the municipal infrastructures.

¹¹ Due to cultural reasons there was no option not to include the female respondents to answer this question. Although it was tried as much as possible by me and the translator, in this case cultural barriers pose more rules to be followed rather than chances of communicating with a full group of respondents.

6.1.3 WILLINGNESS TO INVEST TIME AND MONEY

Factor	Operationalization/Codes	Maximum potential score	Score
Willingness to pay	Presence of financial assets within the community [W11]	+	+
	Willingness to contribute to project funding [W12]	+	~
	Willingness to pay for a Water Tax [W13]	+	+

The residents stated that they do possess financial assets that can be invested in WATSAN infrastructure improvement [W11] and they are willing to pay for a water tax [W13], especially in the case of the first group of respondents that do have access to municipal WATSAN service provision.

It is unclear whether the willingness to contribute to project funding is present, as it will be explained in section during the interview rounds the question received positive reactions from the respondents, but it does not match with the low level of trust given to the municipality. The same conditions met in the second group of respondents, which also do hold the financial assets to pay for WATSAN services and even tried legal pathways (the NOC scheme) but without experiencing any positive effect.

Therefore, the [W11-3] indicators score a positive (+) whereas the [W12] indicator scores a (~)

Factor	Operationalization/Codes	Maximum potential score	Score
Willingness to invest labour	Presence of skilled workers within the community [W14]	+	X
	Willingness to contribute to the operation and maintenance (O&M) phase of project implementation [W15]	+	+

[W14]: The workforce of Yogeshwanagar is highly unskilled. As introduced in the socio-economic indicators besides the high unemployment rates; the male population is usually involved in low-skill informal work. Therefore training would definitely be needed in the case of setting up a coproduction process for WATSAN. The indicator, for said reasons, scores a (X).

[W15]: The respondents of the first group of interviews reacted positively for cooperating in operation and maintenance phases of project implementation. It must be noted that the respondents were all females so they were mainly referring about their husbands being involved, although a couple of respondents even said that they would have no problem to be engaged themselves in the O&M phase.

The alleged willingness to cooperate for O&M phase was therefore scored as a (+).

6.1.4 ORGANIZATIONAL SKILLS

Factor	Operationalization/Codes	Maximum potential score	Score
Appropriate Leadership	Presence of a leader figure [OR1] Age of Leader [OR2] Connection with institutions and external actors [OR3] Election processes [OR4] Ability to shift to changes [OR5] Decision enacted by the leaders are supported by the community [OR6]	+++++	Not evaluable

Unfortunately, no TG leader figure is present, or was reported to be present in both the interview rounds. Therefore the residents do not have any representative that could smoothen up the relationships with the external actors (NGOs and privates) and more importantly, the municipality. The author is aware that it is highly unlikely that in the areas there is no community leader or CBOs that advocates for WATSAN or represents the needs and issues of the residents. Unfortunately, as it will be possible to assess in the other two areas, the result is negatively consistent, for this reason a section on the alleged lack of leadership/CBOs in the areas was added as a part of the discussion section on the quality of the gathered data.

For these reasons, all the indicators scored as not evaluable due to the fact that the absence could of the factor could not be reliably proven.

Factor	Operationalization/Codes	Maximum potential score	Score
Presence of a community based organization (CBO)	Presence of a CBO [OR7] Perception of the representativeness of the CBO [OR8] Is the CBO legally recognized by other relevant stakeholders [OR9] Connections with institutions and external actors [OR10] How the CBO was established [OR11] Ability to shift to changes [OR12] Decisions enacted by the CBO are supported by the community [OR13]	+++++	Not evaluable

As it is the case for the appropriate leadership factor, the respondents stated that there is no community based organization based in the area. The same statement was confirmed by the

URC coordinator of Vasna in more than one occasion, the same explanations provided in the “appropriate” leadership factor evaluation therefore also stand on the presence of CBOs.

Factor	Operationalization/Codes	Maximum potential score	Score
Managerial capacity and training	Presence of training facilities within the community [OR14]	+	X
	Types of training (technical; managerial; other) [OR15]	+	X

In both rounds of interviews the respondents did not provide any guidance on the presence of reachable training facilities within the area. Moreover, being the population highly unskilled it is likely that the unemployment rates are also a consequence of no chances to be trained even for low-skilled jobs. For these reasons both indicators were scored as absent (X).

Factor	Operationalization/Codes	Maximum potential score	Score
Self-mobilization	Involvement of TG in other WATSAN initiatives [OR16]	+	X

None of the respondents, in both rounds of interviews were involved or knew of other WATSAN initiatives.

6.1.5 VASNA SUMMARIZATION

Overall respondents seemed to have a high degree of awareness towards their WATSAN issues: a clear description of the issues was provided, linkages to water quality were made and 2 respondents knew about the NOC scheme.

Albeit the positive remarks on the degree of awareness of the respondents, it cannot be stated that the customer group is ready to engage in functional coordination processes with the URC, the reasoning is as follows.

The main issue at hand is the alleged lack of leadership or CBOs in the two pockets taken into account by the analysis, it poses questions on the real willingness to pay or invest labour of the residents. Another issue in understanding if the willingness to invest money in infrastructural upgrades or implementation of WATSAN infrastructures also comes from the fact that the communication channels and the conflict-resolution mechanisms on WATSAN disputes between the customer group and the municipality are characterized by high inefficiency and resulting low trust towards the governmental agency. Said subject will be addressed in section 9 of this paper. Moreover, it is unlikely that the customer group and the NGO can engage in functional coordination processes if there is an absence of key actors to attend structured meetings in order to present the needs of the residents and increase the communication quality between the residents and the NGO.

Finally, the residents are highly unskilled and no training facilities are available in the area, moreover none of the respondents were involved in the past or at the time of analysis in other

WATSAN initiatives, meaning that the customer group lacks of expertise in administrating their WATSAN related problems.

Factor	Score/Max potential score
Small size	Not a small sized pocket
Clearly defined boundaries	Boundaries are clearly defined
Socio-economic indicators	No score
Perception of the problem	+++ /+++
Priorities for WATSAN implementation	+ /+
Willingness to pay	+~+ /+++
Willingness to invest labour	X+ /++
Appropriate Leadership	Not evaluable
Presence of a CBO	Not evaluable
Managerial capacity and training	XX /++
Self-mobilization	X /+

Table 4: Vasna summarization table

6.2 BEHRAMPURA

The Behrampura area of Ahmedabad is located in the South sector of the city, constituting an area of 8.63 Sq.Km (AMCweb, 2012). Approximately, around 1000 households compose the area visited during the field-research phase: Koriatnagar.¹²

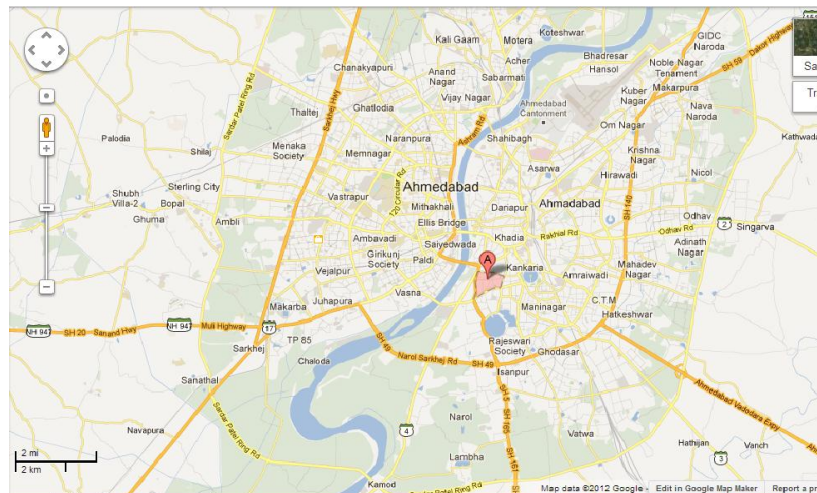


Figure 6: Behrampura area, retrieved on Google Maps (2012).

The main issues are as follows: (I) 60% of the residents do not have access to individual toilets, therefore they have to rely on pay-and-use toilets; (II) water connections are provided by the municipality, but due to low water pressure the residents have to rely on hand-pumping to satisfy their own water needs; (III) the residents are not billed for the provision of the water services; (IV) the state of the infrastructure is overall not optimal, the drainage pipes get choked easily, resulting in wastewater flowing inside households and on the streets¹³.

The majority of these issues are concentrated in Koriatnagar and Ram Rahim Na Tekra, for the investigation purposes the group interviews were conducted in Koriatnagar as suggested by the URC Behrampura staff. The names of the two visited pockets are respectively Himtaji maharajni chali and Khodiyar ma mandir ni chali.

The number of interviewed households during the data gathering phase is 27. The respondents were reached out in two rounds of interviews, at the first round 15 respondents were present, and at the second round 12 respondents were present.

6.2.1 GROUP CHARACTERISTICS

Factor
Small size

As previously introduced, the area is not of small size, due to the fact that is approximately composed by 1000 households.

¹² As stated by the URC coordinator Ghopalbhai during the URC general meeting held at Saath the 13/12/2012

¹³ Ibid.

Factor
Clearly defined boundaries

The area in which the customer group interviews were conducted, Koriatnagar, is part of the bigger ward of Behrampura. Although the area does not count as a ward per se, it is clearly acknowledged by the municipality, the TG and the NGO sector. Thereby the boundaries of Behrampura and Koriatnagar as a pocket are clearly defined.

Factor	Operationalization/Codes
Socio-economic indicators	Type of employment[CG1] Number of people per household[GC2] Religion[GC3]

[GC1]: The residents living in the area are employed in mainly two types of jobs: informal sector or in the nearby vegetable market. Unemployment rates are high, both for female and male population¹⁴.

[GC2]: The average household size is 4 people

[GC3]: Behrampura (and Koriatnagar) is characterized by a mix of Hindu and Muslim residents, as regards of WATSAN policies and provision of services the residents did not state anything about being excluded due to religious association.

6.2.2 AWARENESS

Factor	Operationalization/Codes	Maximum potential score	Score
Perception of the problem	Clear description of the problem[AW1]	+	+
	Linkages to health hazards connected to WATSAN[AW2]	+	X
	Alternatives to access to WATSAN[AW3]	+	X

[AW1]: The first group of respondents (15) fetches their water from the individual household hand-pumps; unfortunately water provision does not last for more than 30 minutes per day¹⁵. In most of the cases, the respondents fetch water from the nearby¹⁶ vegetable market where factories provide small water tanks for free. As regards of sanitation facilities it was observed that the residents had access to individual toilets. A problem connected to sanitation facilities and stated by the respondents is the overflowing of wastewater issue, the pipelines (were present) in the area are old and in bad conditions, therefore every 3 or 4 days the wastewater overflows from the households to the streets.

¹⁴ Stated by the respondents and confirmed by the colleague that was translating during the interview

¹⁵ Information confirmed by the Behrampura AMC officer

¹⁶ Nearby as defined by the respondents, it is actually more than 30 minutes away if walking

The second group of respondents (12) does not have access to WATSAN facilities at home, but could access water from a nearby municipal water tank. The provision of water still does not work efficiently, at the time of the interview, as stated by 1 of the respondents; in the lane in which the group interview was conducted the residents did not have access to water since 4 days. As regards of sanitation facilities the respondents did not have access to individual toilets.

[AW2]: Albeit the problem descriptions provided by the respondents in both rounds were clear, the respondents in both rounds of interviews failed to provide linkages to health hazards and water quality connected to WATSAN provision.

[AW3]: The respondents, as far as they know, do not have any other alternatives to access WATSAN besides the official municipal system and compensation services such as water tanks. The respondents did not state that private contractors were present in the area.

Factor	Operationalization/Codes	Maximum potential score	Score
Priorities for WATSAN implementation	Importance of WATSAN for the TG [AW4]	+	+

[AW4]: WATSAN is a top priority for the residents in the area, and the preferences on the types of services they needed were clearly expressed, leaving little room for further speculation.

In the case of the first group of respondents the main needs were about constant water provision and better condition of sanitation pipelines.

The second group, due to the complete lack of the facilities, asked for the provision of both services, or at least, in the short term, for constant water provision through the water tanks.

6.2.3 WILLINGNESS TO INVEST TIME AND MONEY

Factor	Operationalization/Codes	Maximum potential score	Score
Willingness to pay	Presence of financial assets within the community [W11]	+	+
	Willingness to contribute to project funding [W12]	+	~
	Willingness to pay for a Water Tax [W13]	+	+

Similarly to the case of Vasna, assessing the willingness to pay of the residents is not an easy task and provided unclear answers. As the respondents in the first group stated they do have the financial assets and are willing to pay for water and sanitation provision of services [W11 and 3] but albeit the respondents even stated that they would contribute for project's funding for improving or implementing WATSAN infrastructures, the results are still not reliable/unclear due to the low trust expressed towards the municipality.

More importantly, the second round of interviews did not provide any relevant result on the subject as the interview focused more on the customer group – NGO – municipal interactions due to the direr conditions in which the residents were living in.

Factor	Operationalization/Codes	Maximum potential score	Score
Willingness to invest labour	Presence of skilled workers within the community [W14]	+	X
	Willingness to contribute to the O&M phase of project implementation [W15]	+	+

[W14]: By mere speculation on the information provided by both the residents and the colleague present at the time of the interview, there is no presence of skilled workers that could be employed in the operation and maintenance phases of WATSAN project implementation without further training. The indicators results in a (X).

[W15]: The respondents of the first group reacted positively to the possibility of cooperating in the operation and maintenance phases of WATSAN infrastructure upgrading. Moreover, the men that attended the interview also stated that they would be willing to provide suggestions on how to implement WATSAN infrastructures.

The indicator, for the reasons described above scored a (+).

6.2.4 ORGANIZATIONAL SKILLS

Factor	Operationalization/Codes	Maximum potential score	Score
Appropriate Leadership	Presence of a leader figure [OR1] Age of Leader [OR2] Connection with institutions and external actors [OR3] Election processes [OR4] Ability to shift to changes [OR5] Decision enacted by the leaders are supported by the community [OR6]	+++++	Not evaluable

Similarly to the Vasna case, it was impossible to get in touch with leadership figures or CBOs in Behrampura due the alleged absence of them. To avoid repetition, please refer to the discussion section regarding the limitations in data gathering.

Factor	Operationalization/Codes	Maximum potential score	Score
Presence of a community based organization (CBO)	Presence of a CBO [OR7] Perception of the representativeness of the CBO [OR8] Is the CBO legally recognized by other relevant stakeholders [OR9] Connections with institutions and external actors [OR10] How the CBO was established [OR11] Ability to shift to changes [OR12] Decisions enacted by the CBO are supported by the community [OR13]	+++++++	Not evaluable/Absent

The same conditions of an alleged absence of leadership in the area also applied in the case of CBOs please refer to the discussion section over data quality.

Factor	Operationalization/Codes	Maximum potential score	Score
Managerial capacity and training	Presence of training facilities within the community [OR14]	+	X
	Types of training (technical; managerial; other) [OR15]	+	X

Similarly to the other wards, the respondents stated that there are no training facilities active in the areas. Therefore both indicators score an absent (X).

Factor	Operationalization/Codes	Maximum potential score	Score
Self-mobilization	Involvement of TG in other WATSAN initiatives [OR16]	+	x

The interviewed residents, in both rounds of interviews were not involved in any other WATSAN initiative, neither from Saath or any other external agent¹⁷.

¹⁷ It must be stated that the URC Behrampura provides a small sanitation loan to the slum residents of the area, but the coverage of the loan is narrow. Therefore it might be possible that the coverage did not reach out in Koriatnagar or that the residents, considering the assessment of the other factors, did not know anything about the presence of said loan.

6.2.5 BEHRAMPURA SUMMARIZATION TABLE

Overall, the results of the interviews with the Behrampura residents were quite negative. The respondents provided clear description of the issues characterizing their areas, but failed to provide linkages to health hazards or water quality. Moreover, none of the respondents are aware of the presence of the NOC scheme.

In addition to the issue of the degree of awareness of the customer group, Behrampura is also characterized by an alleged lack of leaders or CBOs working on the WATSAN issues characterizing the area. Therefore, similarly at the case of Vasna, it is unlikely that functional coordination processes can be achieved if the customer group does not self-organize in such a way that a leader or a CBO is present to address the needs of the area.

The respondent, in addition to be rather unaware on the real impact of WATSAN issues for their livelihood, are, similarly to the other wards, highly unskilled and do not have access to training facilities.

Finally, none of the respondents were involved at the time of analysis, or in the past, in other WATSAN related initiatives, meaning that there is no matured expertise on the subject.

Overall, the outlook of Behrampura's residents in achieving high coordination potential with the NGO seems to be rather low.

Factor	Score/Max Score
Small size	No score
Clearly defined boundaries	No score
Socio-economic indicators	No score
Perception of the problem	+XX/+++
Priorities for WATSAN implementation	+
Willingness to pay	+~/+/+++
Willingness to invest labour	X+/++
Appropriate Leadership	Not evaluable
Presence of a community based organization	Not evaluable
Managerial capacity and training	XX/++
Self-mobilization	X/+

Table 5: Behrampura summarization table

6.3 JUHAPURA

The Juhapura area is located in the western side of Ahmedabad; it is part of the Sarkehj ward. It is composed by 3500 households and 10 wards¹⁸. The peculiarity of the area is that is composed by only Muslim residents, making it the only area of the city which does not have religious mixtures. The polarization of the area as regards of religion experienced a spike during the 2002 Gujarati Riots, in which violent groups of Hindu citizens began to slaughter Muslim citizens. The Gujarati riots of 2002 did not only polarize society in Ahmedabad only for the slum residents, but also the middle class.

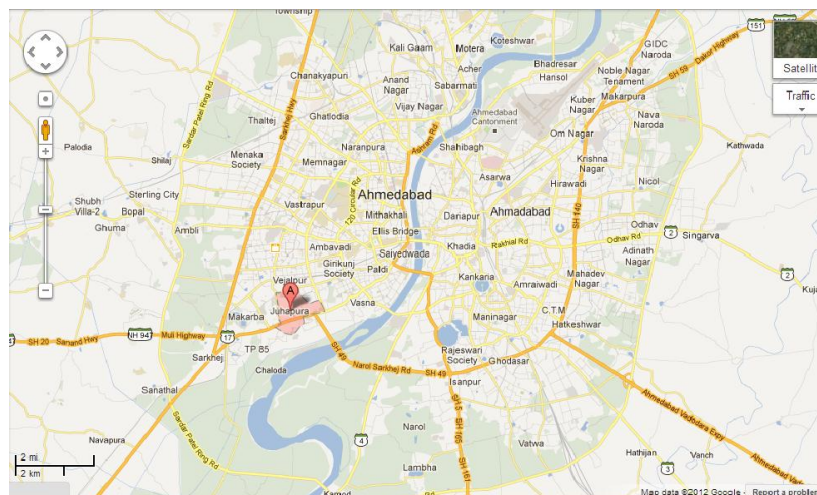


Figure 7: Juhapura area, retrieved on Google maps (2012)

For the scope of this research, 4 different slum pockets within Juhapura were visited: Ronak Park; Ashafnagar; H.Ward and Sama society.

The number of interviewed households in Juhapura is 40. The first half were reached in the first round of interviews (respectively in groups of 7 - 7 - 7), the second half was reached during the second round of interviews.

6.3.1 GROUP CHARACTERISTICS

Factor
Small size

The area cannot be considered of small size due to the fact that it comprises approximately 1300 households, rounding up to 6000-8000 residents¹⁹

Factor
Clearly defined boundaries

The boundaries of the area are clearly defined and acknowledged by the NGO sector, the municipality and the residents.

¹⁸ Information provided during a general meeting with the URCs coordinators and field-workers held the 13/12/2012.

¹⁹ Estimate provided by the URC coordinator Juhapura

Factor	Operationalization/Codes
Socio-economic indicators	Type of employment[CG1]
	Number of people per household[GC2]
	Religion[GC3]

[GC1]: The residents living in the area, similarly to the other two case-studies either work in the informal sector or as Rickshaw drivers. Female unemployment, according to the respondents' answers was not assumed as being categorized as a problem most likely due to cultural reasons. The assumption was confirmed by the research coordinator of the NGO: women are still considered as class-B citizens and are usually not allowed to get out of the household.

[GC2]: The average number of people living in a household is 4-5.

[GC3]: As introduced before the area is characterized by being 100% composed by Muslim residents. The main reasons behind the concentration of Muslims in one area is caused by the fact that the Muslim residents are afraid of other riots, as stated by the URC coordinator Juhapura during an individual interview and by some of the respondents during the interview rounds²⁰.

The heavy polarization of the area compared to the city, which is characterized by fair mixture of different religions, does not play as an asset for the residents of the whole area since, according to all the respondents and the URC coordinator Juhapura is politically and socially isolated from the rest of Ahmedabad.

For these reasons, Juhapura is considered the biggest Muslim ghetto of Gujarat²¹.

6.3.2 AWARENESS

Factor	Operationalization/Codes	Maximum potential score	Score
Perception of the problem	Clear description of the problem[AW1]	+	+
	Linkages to health hazards connected to WATSAN[AW2]	+	+
	Alternatives to access to WATSAN[AW3]	+	X

[AW1]: Regarding WATSAN provision in the first group of respondent, the households have access to water thanks to an individual water-pump connected to a bore well. Similarly to Behrampur water provision is not constant throughout the days and does not exceed 1 hour time, the hour of provision also changes every day, rendering access to water even more of a challenge. Individual sanitation facilities were stated to be present by the group of respondents and were also in-line to the problem description initially provided by Saath. The drainage line is quite old (35 years) and in bad conditions, the pipelines choke easily and every 3 or 4 days the

²⁰ 1 Male respondent in the first round, 3 other male respondents in the second round

²¹ (The Indian Express, 2009)

wastewater begins to flow from the households down the streets. The respondents not only described the issue but went even more into detail in explaining how the problem arises: the wastewater is stored in a drainage tank every 4 houses, the location of said drainage tank is usually under one household. When the tank is at over-capacity and the pipelines choke the wastewater begins to flow inside the houses and on the streets.

The second group of respondents did not have access to WATSAN facilities. According to the respondents' answers the only alternative to access WATSAN services is constituted by the presence of the private contractors.

Due to the clear description of the issues provided by the respondents the indicator scores a (+)

[AW2]: For the first time in the three analysed cases a clear linkage between sanitation issues and awareness on collateral health damage was made by some of the respondents, in the first group interviews 6 females complained about the fact that due to the overflow of wastewater in the households their children get ill more easily. Therefore the indicator scores a (+)

[AW3]: The residents in the area do not have alternatives for WATSAN service provision. The respondents rightfully do not consider the private contractors a solution due to the risk of getting the connection raided by the municipality and the costs to establish the "service". Moreover the residents do not have access to extra municipal services such as water tanks or public fountains as it was the case for Vasna and Behrampura. Only one of the respondents knew about the NOC scheme throughout the two rounds of interviews, and the pricing of the scheme (500INR as it was presented in the UMC report) were not consistent on what it is state in the municipal report, therefore even if in one case the information on the NOC was achieved it was of bad quality. Therefore the indicator scores a (X).

Factor	Operationalization/Codes	Maximum potential score	Score
Priorities for WATSAN implementation	Importance of WATSAN for the TG [AW4]	+	+

The findings of the group interviews provided clear results on this factor mainly for the first group of respondents. This is because the second group is affected by the issue of land tenure and has no access to WATSAN service provision.

The findings can be summarized as follows: (I) the drainage tanks shall be transferred from inside the households to outside the households (as suggested by 10 respondents); (II) WATSAN service provision should be implemented, as the High Court of Ahmedabad already declared in a verdict due March 2012 (as stated and shown by the only man present at the first round of group interviews).

6.3.3 WILLINGNESS TO INVEST TIME AND MONEY

Factor	Operationalization/Codes	Maximum potential score	Score
Willingness to pay	Presence of financial assets within the community [W11]	+	~
	Willingness to contribute to project funding [W12]	+	X
	Willingness to pay for a Water Tax [W13]	+	+

Throughout the two rounds of interviews the residents provided consistent and positive answers as regards of the possibility of paying for a water service tax [W13]. The statement is reinforced by the fact that the respondents do not see the private contractors as a viable option.

Besides the willingness to pay for water services, the residents did not explicitly state that they would have the financial assets to pay for the tax, as a matter of fact they complained about the low wages and the costs of everyday life. Therefore the [W11] indicator scores a (~).

The respondents did not provide any insight on the possibility of paying for WATSAN infrastructure upgrade, therefore the indicator scores (X).

Factor	Operationalization/Codes	Maximum potential score	Score
Willingness to invest labour	Presence of skilled workers within the community [W14]	+	X
	Willingness to contribute to the O&M phase of project implementation [W15]	+	~

Similarly to the other two areas, due to the information provided as regards of the workforce living in Juhapura, it can be stated that [W14] is not present (X).

As regards of [W15] clear results could not be gathered due to the fact that most of the respondents were female and due to the cultural reasons introduced in [GC1] they did not talk about work-related questions or could not talk on the behalf of their husbands. For this reason the indicator scores (~).

6.3.4 ORGANIZATIONAL SKILLS

Factor	Operationalization/Codes	Maximum potential score	Score
Appropriate Leadership	Presence of a leader figure [OR1] Age of Leader [OR2] Connection with institutions and external actors [OR3] Election processes [OR4] Ability to shift to changes [OR5] Decision enacted by the leaders are supported by the community [OR6]	+++++	Not evaluable

As it is the case of the other two wards, none of the respondents stated that a community leader is present in the areas. The variable scores as “not evaluable” due to the fact that it is unlikely that community leaders are not present in the areas.

Factor	Operationalization/Codes	Maximum potential score	Score
Presence of an organized committee of the community	Presence of a CBO [OR7] Perception of the representativeness of the CBO [OR8] Is the CBO legally recognized by other relevant stakeholders [OR9] Connections with institutions and external actors [OR10] How the CBO was established [OR11] Ability to shift to changes [OR12] Decisions enacted by the CBO are supported by the community [OR13]	+++++	Not evaluable

Albeit the URC coordinator Juhapura stated that a CBO for education and WATSAN is being developed in the area, at present time no CBO is advocating for the rights of the residents of the area.

Factor	Operationalization/Codes	Maximum potential score	Score
Managerial capacity and training	Presence of training facilities within the community [OR14]	+	X
	Types of training (technical; managerial; other) [OR15]	+	X

Similarly to the willingness to invest labour factor, no relevant results could be accessed through the group interviews with the residents due to cultural reasons. Although it is known to the author that in the surroundings of the 4 pockets where the interviews were conducted no training facilities are provided to the residents.

Factor	Operationalization/Codes	Maximum potential score	Score
Self-mobilization	Involvement of TG in other WATSAN initiatives [OR16]	+	X

No residents are involved in other WATSAN improving projects or initiatives.

6.3.5 JUHAPURA SUMMARIZATION TABLE

The slum pockets analysed in Juhapura provided mixed results as regards of the potential of the customer group to engage in functional coordination processes with the NGO.

First and foremost the respondents of the wards seemed to be the most aware as regards of WATSAN issues, not only in providing detailed infrastructural explanations on the issues but by also making clear linkages on health hazards connected to bad sanitation. Albeit the respondents had a high degree of awareness as regards of the characters of their infrastructural WATSAN issues and the connected health hazards, only one of them knew about the existence of the NOC scheme.

The issues that also affected the other two wards such as the alleged absence of leadership figures or CBOs in the area, the unskilled workforce and the lack of training facilities and the lack of any involvement in other WATSAN initiatives poses questions on whether the groups of Juhapura are ready to engage in functional coordination processes with the NGO as regards of WATSAN.

Albeit the area is tackled by issues that were discovered to be common across the three slum areas, it must be stated that the Juhapura ward is the only area that is bringing to court the municipal corporation for the lack of WATSAN facilities, which were supposed to be implemented by March 2012. Moreover, the NGO claim that is trying to set up a CBO for education and WATSAN issues, which are the two most impacting problems characterizing the ward at present time.

For these reasons, although there is still much room for improvement, compared to the other two cases the Juhapura respondents seem to be the most prepared to engage in functional coordination processes for WATSAN.

Factor	Score/Maximum potential score
Small size	No score
Clearly defined boundaries	No score
Socio-economic indicators	No score
Perception of the problem	++X/+++
Priorities for WATSAN implementation	+
Willingness to pay	+X+/+++
Willingness to invest labour	X~/++
Appropriate Leadership	Not evaluable
Presence of a community based organization	Not evaluable
Managerial capacity and training	XX/++
Self-mobilization	X/+

Table 6: Juhapura summarization table

7 NGO CAPACITY ASSESSMENT

The focus of this section is to assess the set of capacities deemed useful for the NGO in order to be able to achieve high coordination with the customer groups analysed in section 6.

Due to the fact that Saath possesses a governance instrument that is active in the three slum areas analysed by this study, the focus of the NGO analysis will be based on the instrument rather than the NGO as a whole.

Consequently, a brief introduction on the Urban Resource Centres (URCs) shall be provided, then the analysis of the instrument, based on academic literature, observation on the field, a series of interviews with the staff of the URCs and the directors of the NGO will try to address whether the URCs can be successful in (I) operating in a sustainable way; (II) reaching out the customer groups and making them ready to engage in a coproduction process with the municipality; (III) act as a facilitator for a coproduction process between the customer group and the municipality of Ahmedabad.

7.1 THE URBAN RESOURCE CENTRE

The Urban Resource Centre is an instrument established by Saath to facilitate the access to governmental/municipal services to the slum residents living in the areas of Juhapura, Behrampura and Vasna. At present four URCs are open: one for each slum area analysed by this study and a fourth one (opened in February 2013) in the city of Rajkot.

The URCs, according to Saath are: (I) centralized information hubs; (II) platforms that facilitate knowledge transaction; (III) intermediary between the urban poor and the service providers; (IV) facilitator for the rights of beneficiaries and (V) advocating and monitoring body that has a macro-level of understanding issues (Saath, 2012).

Since the URC is a sort of social platform, it includes the cooperation – or being the communication node – between other stakeholders, namely: governmental officers, Ahmedabad Municipal Corporation; banks and so on²².

As of today the URC is an instrument that through its activities enables many of the residents in the areas to have proper identification documents, ration cards, opening bank accounts, access to micro-credit loans and so on. Overall, the URCs provide, at the time of this analysis, 137 bureaucratic services, reaches out 794 households and serves on average 150 households per month²³.

As of now the URC seems to be a functioning instrument for facilitating the slum residents in attaining services they are supposed access such as identification cards, ration cards and so on. The main question, to be answered by the analysis of the instrument is whether the advocacy side of the URCs is functional and if it could be Saath's solution to (I) empower the slum residents as regards of WATSAN and develop their collective action capacities; (II) achieve high coordination with its customer groups as regards of WATSAN; (III) ready to act as a facilitator between the TG and the municipality for the establishment of a coproduction process.

²² As stated by the Vasna URC coordinator Devben and in a separate occasion by the executive director Keren Nazareth.

²³ Saath's data. The cited numbers are based on the average of the three URCs centres as of January 2013.

7.2 URC CAPACITY ASSESSMENT

The analysis of the URC was conducted with three different sets of data (one per each URC office), to avoid redundancy in the text, the results are summarized in one assessment, due to the fact that most of the provided answers were the same, since the activities enacted by the URCs are identical across the three offices. Whenever relevant nuances in the provided answers are present it will be explicitly stated in the text.

Factor	Operationalization/Code	Maximum potential score	Score
Capability to carry out service delivery and logistics tasks	Organization of the work within the NGO [ORG1]	+	+
	Service Delivery [ORG2]	+	+

[ORG1]: The organization of the work in the URCs seemed to be well planned. The staffs are composed of 3 types of different members: (I) a coordinator; (II) field-workers and (III) one data manager.

The size of the working body varies accordingly to the size of the area the URC has to cover; therefore, the URC Juhapura has the biggest working body (6 members), followed by Behrampura (4) and Vasna (4).

The typical working day in a URC goes as follows: the field-worker ventures into the various slum pockets to conduct household-to-household visits to the residents (the number of households visited per day was stated to be 30 to 50), discuss about the issues tackling their livelihoods and spreading awareness about the presence of the URC and its services. At the end of the day the field-workers bring back the gathered data to the data manager working in the office, which will input the findings in an excel sheet.

Every month the URCs sends to Saath the excel files in which the number of inquiries (number of visited households), linkages (number of provided services) and the revenues made through the provision of the services are reported.

The indicator scores (+) due to the precise roles assigned to each worker in the URC, the frequency in which the URC reports to Saath and the presence of daily household visits to the slum residents.

[ORG2]: The URCs, at the time of this analysis provide 137 services of bureaucratic nature in which it acts as an intermediary agent to allow an easier access to governmental/municipal services to the slum residents. The underlying reasoning in setting up such service delivery system was mainly based on three factors (I) the slum residents often lack any kind of identification documents, making difficult to trace the population flows and targeting the residents for services and policies (II) the residents are unaware on the array of services the government or the municipality provides (III) even if awareness is present, the residents do not know how to move through the bureaucracy to access the services or shy out from trying²⁴.

²⁴ As stated by the executive director of the NGO during a personal interview on Skype at the proposal stage.

It must be noted that at the time of analysis the URCs were mainly providing election cards, due to the fact that in December 2012 the Gujarat national elections were held. The other main services that the URCs provide to their customers are ration cards and identification documents.

As regards of WATSAN issues the URCs at the moment do not seem to provide intermediary services for the residents, aside from the URC of Behrampura which provides a small sanitation loan to build an individual toilet in the household. From the reports disclosed by Saath the coverage of said sanitation loan seems narrow and none of the interviewed residents in Behrampura did state to have applied for it.

Overall, the factor scores a positive (+), the array of services provided by the URC is wide and as far as observation goes it functions well.

Factor	Operationalization/Code	Maximum potential score	Score
Capability to attract resources of support	Funding [ORG3]	No score	No score
	Networking [ORG4]	+	+

[ORG4]: The URCs were supposed to be economically self-sustainable. The funding as of now comes 50% from the revenues made by the URCs through the service delivery system, and the other 50% is funded by Saath²⁵. The issues in funding the URCs are not a mystery to the NGO, but as it was stated by the executive director the presence of the URCs in the areas is important and as far as the scope of the service delivery goes, is providing good results.

The issue in funding poses a problem on the advocacy area of the URCs, as stated by the executive director and the URC Behrampura Coordinator, the advocacy section of the URCs will actually never generate revenues. Due to this reason the advocacy objective of the URC as of now is still not put into action. The main plan of the organization was to achieve at least 80% of self-economical sustainability and then start working on the advocacy side of the URC. After all the activities conducted these years it is apparent Saath that the funding problem will not fade away by itself, at the same time the activities of the URCs are invaluable for the NGO, but they also feel a need to push more on advocacy building.

[ORG5]: The URC networks with different types of stakeholders. First and foremost it acts as an information hub for other Saath's projects such as micro-finance loans; livelihoods and education for children which also might have offices in the areas. Moreover, the URC networks with other stakeholders such as NGOs, Ahmedabad's municipality and private agents. The underlying reasoning, according to the NGO interview is that empowering the customer group is the ultimate goal; therefore if Saath (or the URC) cannot help a slum-resident in solving an issue, but does know where it might be solved, the individual is then sent to the relevant stakeholder.

It must be stated that the URC, being a small office in the slum areas, has a limited networking capacity compared to Saath as an organization. The organization, besides the stakeholders introduced above, also hold linkages with the press, universities, research institutes and external funders.

²⁵ As stated by Keren Nazareth during a personal interview on the organizational challenges of the URCs.

Overall, the “internal networking” of the URCs and the networking in Saath seemed strong enough to guarantee that the URCs will not operate in an isolate manner, therefore the indicator scores a (+).

Factor	Operationalization/Code	Maximum potential score	Score
Capability to adopt self-renew	Selection processes and Training [ORG6]	+	~
	Ability to shift in times of change [ORG7]	+	~

[ORG6]: In order to become a worker in the URCs two conditions have to be fulfilled: (I) the prospect field-worker must be a resident from the community covered by the URC activities and (II) practical/problem solving mentality.

Over the years a third condition was introduced: the prospect field-worker should hold at least eleventh grade, which corresponds to the European high school diploma.

The URC coordinators are selected on the basis of previous relationships with Saath, in the three cases (and consequently, the three URCs) the coordinators were old CBO leaders that were active in the areas.

Overall, the tasks to be conducted by the field workers are not particularly difficult. As a matter of fact other qualities such as being a good listener, having a problem-solving oriented mind, a diplomatic attitude and a deep knowledge of the services provided by the URCs constitutes the main difference between a successful and an unsuccessful worker. For these reasons it can be stated that for the service delivery part of the URCs all the field-workers can work efficiently.

The main problem, for the scope of this study is that none of the field-workers are trained to solve WATSAN bureaucratic issues, and are not trained to know about the details of the NOC scheme. As it was possible to assess during the group interviews none of the respondents knew about the scheme, meaning that they are not trained to tackle more complex institutional issues.

For this reasons the indicator scores a (~), service delivery wise the field workers are very well trained and able to fulfill their tasks, but on WATSAN issues there is still room for improvement.

[ORG7]: The URCs seem to be instruments that can be easily shaped according to the changes in the composition and the subsequent needs of the slum populations dwelling in the areas. This is especially the case for the service delivery part, as previously introduced the offices now provide 137 bureaucratic services, but in the course of the past six years approximately 400 different services were provided.

For said reasons it would be proper to assign a positive grade to the indicator. Unfortunately, during the field research it was also apparent that the lack of trained figures on WATSAN issues results in scarce confidence of the field-workers in acting to address them. A negative mechanism that is established by this lack of self-confidence in being able to help the consumer groups also leads the field-workers to deliberately ignore some of the pockets, as stated by one of the field-workers, due to this lack of self-confidence in addressing WATSAN problems.

For these reasons a major push for WATSAN advocacy and training in the URCs must be enacted, the indicator, due to the differences in service delivery/advocacy for WATSAN scores a (~).

7.3 SAATH'S FUTURE STRATEGIES FOR THE URCs

Three interviews were conducted with the associate, program and executive directors of Saath about the URCs, in order to assess which challenges are tackling the instruments according to the higher organizational layers of the NGO.

As previously introduced in the assessment, the URCs are at the moment stuck in their service provision form, with little to no focus on advocacy building in the communities. This step at the beginning was intended, due to the fact that the main strategy employed in gaining trust towards the communities was to first establish the system of bureaucratic aid. Once the trust was gained from the customer, move on to advocacy building. Moreover as introduced in [ORG4] the organization wanted to first achieve a satisfactory degree of self-economic sustainability and then move to advocacy building, which does not generate revenues.

Besides the funding issues of the advocacy building section of the URCs, the executive director stated that as of now the organization is trying to start this other section of the instrument, since issues such as education and WATSAN services cannot be tackled by the intermediary service delivery form of the URCs. Therefore, the strategy that the NGO now wants to establish is to connect the URCs with a new Saath's program, currently at the proposal stage: the youth development program. The scope of the program is to develop advocacy leaders in the consumer groups and it is specifically aimed at the young generations dwelling in the areas. If the strategic plan is established, according to the executive director, it is more likely that in the future a generation of young leaders will be able to represent the slum's needs and fight for their rights.

Aside the general strategy for further development of advocacy building in the TG from the URC side, as of now the URC Juhapura is trying to gather people and set up a Community Based Organization that would apply institutional pressure on the municipality for Education and WATSAN services. At the moment of the analysis the URC was still discussing the preliminary stages of the CBO to be established; therefore its effects on the residents could not be evaluated.

8 CUSTOMER GROUP – NGO COORDINATION

This section will establish, according to the evaluation conducted for the two dependent variables of the study which is the degree of possible coordination between the customer group and the NGO. It must be noted that although the three customer groups change, the results of the assessment provided very little variation in the results. For this reason, to avoid redundancy in the content, the results of the coordination assessment are summarized in the table below. Explanations on the assignment of each grade will be explained in the following sub-sections. Whenever possible, if there was a great difference in some of the indicators, area-specific explanations will be provided. The section will conclude by speculating, according to the minor differences encountered across the three cases, which of the three areas is more likely to successfully establish functional coordination processes with the URC.

Area of interest	Indicator/Code	Outcome
Meetings	Presence of formal meetings to discuss about WATSAN issues and related initiatives [CM1]	No
	Presence of informal meetings to discuss about WATSAN issues and related initiatives [CM2]	Yes
	Frequency of meetings [CM3]	Varies (negative)
	Presence of key actors [CM4]	No
Communication	Both parties (customer group - NGO) are satisfied with the quantity of the communication [COM1]	Varies (depends on [CM3])
	Both parties (customer group - NGO) are satisfied with the quality of communication [COM2]	Yes for service delivery No for WATSAN
	TG received an orientation on WATSAN initiatives [COM3]	No
Capacity development	NGO develops leadership in customer group, if absent [CD1]	No
	Customer group stimulates the development of new NGO capacities according to their needs [CD2]	Not for WATSAN
Institutional pressure	Customer group and NGO can jointly act together as a pressure group towards institutions for better WATSAN policies	No

Table 7: customer group - NGO coordination

8.1 MEETINGS

The two stakeholders do not meet in formalized contexts to discuss about WATSAN issues and related initiatives [CM1]. As the capacity assessment of the two stakeholders demonstrated, on one hand none of the Wards seem to have leadership figures or active CBOs, which would probably stimulate the organization of more formal meetings. At the same time, the preferred model of interaction of the URC is the individual household meeting [CM2], which, across all cases, was confirmed to be present.

The frequency of the meetings, which in this assessment can only apply to the informal ones, is highly inconsistent across the cases. As it was possible to assess in the NGO assessment the URC

workers claim that they visit approximately 30~50 households per day. As it was observed, this statement was not counter proven by the consumer groups. Throughout the second round of interviews none of the respondents of Juhapura and Behrampura could easily recall the existence of the URC, or the presence of Saath as an NGO. The same condition also applied in the first round of interviews in Behrampura. Therefore, according to the assessment conducted by this study 1 out of 3 wards (or 4 out of 8 visited pockets) did not know about the existence of the URC due to the field workers not venturing in the areas. A factor that has shown to have a major influence to justify this behavior is the lack of training of the URC workers in addressing WATSAN issues. Therefore, due to low self-confidence in being able to help the consumer groups, the field workers ignore some of the areas which are affected by deeply impacting WATSAN issues²⁶.

Another major issue characterizing the meetings cluster is the impossibility of including key-actors to attend WATSAN related meetings. In this case the influence applied by the lack of leadership and CBOs in the consumer group is assumed to have an influence. Nonetheless the working culture of the URCs also does not pose a positive influence on the successfulness of the indicator; it is unlikely that the URC will be able to reach out relevant actors in the consumer groups if the organization does not start to act in a more formalized manner. For these reasons, the outcome on the indicator is negative.

8.2 COMMUNICATION

Depending mainly on the frequency of the meetings, the quantity [COM1] and the quality [COM2] of the communication deeply varies across the slum pockets, but the issues affecting the cluster are consistent across cases.

First and foremost, the quantity of the communication is highly dependent on the frequency of the household visits (informal meetings) on behalf of the URC workers. The overall satisfaction deriving from this link varied accordingly to the number of visits. As it was possible to assess in [COM2] half of the pockets did not know or hardly recalled the presence of the URCs, resulting in low trust to Saath (but to be more specific, to the NGO sector as a whole, since the visited slums were particularly isolated). Therefore the indicator is evaluated as negative.

It must be noted though, that the high frequency and consequently the high quantities of customer group – NGO exchanges does not necessarily imply that both parties are satisfied on the quality of communication [COM2]. As it was experienced during the evaluation, trust building between the two stakeholders happens in the case in which the customer group needs and uses the service-delivery section of the URC. Due to the fact that WATSAN issues are at the moment not addressed by the URCs and its workers, whenever the discussion would shift on this subject the trust expressed towards the URC was remarkably lower. To provide a brief example: during the second round of interviews in Vasna (which was characterized by high frequency of meetings) one of the topics discussed was on the knowledge of the customer group of the NOC scheme and whether the URC is helping the residents in understanding the procedure. The discussion topic was source of a small fight between the two men present at the interview and the field worker. The accusation was that the URC is not able to help the residents

²⁶ The common traits between the areas that are ignored by the field-workers were characterized by the total absence of WATSAN provision

in understanding the procedure and successfully filling up the required forms. For these reasons, the indicator scores a “Yes for service delivery/No for WATSAN”.

The last indicator, due to the lack of training in the URCs about WATSAN policies, schemes and initiatives scores negatively. It was experienced that whenever the customer groups had knowledge of the NOC scheme the source of information was definitely not the URC, since none of the field-workers knew about the existence of the scheme at the time of analysis.

8.3 MUTUAL CAPACITY DEVELOPMENT

The evaluation of coordination as regards of mutual capacity development cluster scores overall low grades.

First and foremost for [CD1] none of the URCs, besides the one in Juhapura is trying to develop leadership figures or CBOs that could advocate for WATSAN service provision in the area.

The evaluation on [CD2] provided mixed results, the URCs definitely tries to tailor itself according to the TG needs since the array of services provided by the URCs changes every year according to what is demanded from the communities. Unfortunately the same criterion does not apply for WATSAN services, which are by nature more complex and need more time in order to be successfully solved. Overall it was tangible after the second rounds of interviews that the URCs are at the moment not ready to guide the communities towards a coproduction process with the municipality due to the fact that they still have to train themselves as an organization to tackle WATSAN issues in a bureaucratic sense, and then engage in passing their knowledge to the customer group.

For these reasons, the feedback loops that were assumed in the conceptual model as regards of the effects of coordination on the two stakeholders can only be considered in the case of [CD2] but not on WATSAN issues. The assumed feedback loop to be present for [CD1] is not present, due to the fact that the URCs are definitely aware of the nature of the WATSAN issues tackling the areas that they are supposed to cover but (I) they do not visit them as often, as it was demonstrated in the evaluation of the meeting clusters; (II) they do not know how to tackle them, since the issues are highly bureaucratic and the field-workers and the coordinators lack the knowledge on the policies and schemes that might be present in the institutional framework for WATSAN.

8.4 INSTITUTIONAL PRESSURE

Due to all the reasons described above, especially in the case of [CD1] and the varying degrees of trust resulting from the communication clusters, it is impossible at the moment that the customer group and the NGO can swiftly act as an institutional pressure group against the municipality to ask improved WATSAN policies and schemes. More organization, leadership figures and efficient communication is needed in the customer group and the URCs. Therefore the outlook of this indicator is negative.

8.5 DISCUSSION ON THE COORDINATION ASSESSMENT

The assessment of the dependent variable did not provide much differentiation in the results on the overall potential of coordination between the two stakeholders across the three areas.

Therefore, in order to explain why a comparison between cases would not be useful due to the fact that coordination potential is quite similar throughout the three areas, the author will

engage in stating which factors in the dependent variables were considered most relevant in stating that across the three areas the coordination between the two stakeholders is low.

Customer group level

The factors that is assumed to have a major influence in the overall low potential for coordination at the customer group is the (I) Presence of leadership and (II) presence of a community based organization. The underlying reasoning is that all the three communities have a satisfactory degree of awareness as in perception of the problem and priorities for WATSAN implementation. The issue at hand is that the communities interface themselves with the URC in a very informal way and discuss about complex issues such as WATSAN service delivery in the areas.

Due to this reason, the observation of the author is that the customer group is rather passive in its interaction with the URC, and this should not be the case if the NGO is trying to achieve coordination with its target group. The passiveness of the customer group is assumed by the fact that since there are no leaders or CBOs, the chances of establishing formal meetings to discuss about WATSAN issues and initiatives are less likely to happen. The assumption is based upon the fact that the URCs prefer an informal, household-to-household meeting. As it was possible to assess, the frequency of the meetings and the resulting trust and satisfaction from the communications between the customer group and the URC deeply varies according to (I) the frequency of the meetings and (II) the skills of the URC workers to solve WATSAN issues.

NGO level

The factors that are assumed to have a major influence on the low degree of customer group – NGO coordination at the NGO level are: (I) the organization of the work factor and (II) the capacity to adopt self-renew. The reasoning is as follows.

The URC is characterized by an informal, face-to-face type of interaction with its target communities (I). Such approach can be considered useful whenever one thinks about providing an intermediary service such as filling a form to receive an identification document. However, in the case of WATSAN issues, the instrument and its working culture proven to be rather unsuccessful in establishing a good relationship with the customer group which would also develop trust towards the workers and to the URC as an instrument. A second major issue, connected to the (II) most impacting factor is characterized by the fact that the URC workers not only are untrained to address WATSAN issues under in a bureaucratic sense, but are not trying to develop the needed knowledge to address the issues explained by the consumer groups.

One of the observations, introduced in the coordination assessment is about the fact that the field-workers have a deep knowledge on the type of WATSAN issues affecting the visited slum-pockets, but instead of viewing the challenge as a chance to develop further skills, they prefer to venture less in the areas and focus more on the service-delivery section of their work.

The issues posed by the lack of leadership in the customer group and the inability of the NGO to develop new skills and function in a less informal manner do have a much clearer correlation in the case of the institutional pressure and capacity development clusters. In this case there is no way to opt out from the fact that all the indicators crossed for these two clusters are of utmost importance to achieve high coordination.

Concluding, the coordination potential between the customer group and the URC is low. The URC has the responsibility to develop useful skills that will lead to a better understanding of bureaucratic problems connected to WATSAN issues. Moreover it is the responsibility of the URCs to help the development of leadership and CBOs in the customer groups to address WATSAN issues. Consequently, a new relationship based on more formal, structured meetings and interaction must be established.

9 INSTITUTIONAL ENVIRONMENT

The institutional setting influencing the provision of WATSAN services in the slum areas of Ahmedabad, as far as the scope of this research project, is characterized by two main institutional barriers: (I) scarcity of WATSAN provision schemes aimed at the consumer group and (II) issues on the land tenure of the slum areas.

These two institutional barriers were identified during the data gathering phase as the process of assessing the customer group and NGO capacities was undergoing, and through which the issues connected to the institutional framework were explicitly stated by the respondents of the interviews in more than one occasion.

The following subsection will therefore introduce the institutional barriers that are applying a negative influence on the capacity development of the two main stakeholders taken into account by the study, and will then conclude assumptions on the influence of the institutional environment on the two stakeholders and their potential for coordination.

The information on the communication quality between the customer group and the municipality is included to provide the reader some background context on which type of interaction characterize the two stakeholders and why WATSAN issues in the slums are still a major issue in the analysed areas. As introduced in the theoretical background the institutional environment acts as an intervening variable influencing the development of the customer group capacities, NGO capacities and the overall potential coordination that is achievable between the two stakeholders.

9.1.1 WATSAN PROVISION SCHEMES

One of the two main institutional barriers encountered during the field-work research phase of this study was the complete lack of proper WATSAN provision schemes for the slum residents.

At present time the only available scheme is the 500 NOC introduced in section 5.3.2. The scheme, compared to the past history of slum-improvement of Ahmedabad, does not reflect the vision of the municipality on slum improvement of the late 1990s – early 2000s (which was characterized by the presence of the slum networking project). First and foremost the NOC scheme is not directly aimed at the slum residents, as the UMC report (2012) states, the scheme is exclusively applicable to households that are not placed on illegally occupied territories. As it will be possible to assess in the next sub-section, this condition does not apply for the vast majority of the slum residents. In order to further investigate on the weight of the statements found in the report, the question whether the conditions automatically exclude most of the slum residents was asked to three municipal officers in charge of the areas. The results on the question were conflicting across the three interviews: the officer of Vasna stated that the slum residents, being on encroached land or not, could apply for the scheme, the same statement was

found not to be true according to the officers of Behrampura and Juhapura, which confirmed the conditions expressed in the municipal report.

Moreover, all the three officers stated that the municipality does act as a knowledge broker towards the customer groups by providing information on the NOC scheme through means of (I) local officers; (II) counsellors and (III) elected political leaders. The statement was proven not to be true across all cases due to the fact that the slum residents felt overlooked by the municipal body. As it was stated by the residents of the slums it is difficult to reach out the municipal officers; even if they are reached out, the problems are usually not solved, and, in the worst cases (which applied to all the pockets in Juhapura) the respondents do not know who are the municipal officers, counsellors or elected political leader in charge of the area.

Overall, besides the presence of this scheme, there are no other legal options for the slum residents to apply for a legal WATSAN connection. Moreover, the lack of municipal driven slum-improving projects and the scarcity of WATSAN provision schemes denote that the vision of slum-improvement is not high on the municipal agenda at the time of analysis.

9.1.2 LAND TENURE

The second main issue encountered throughout the whole duration of the field-work phase is about the legal ownership to the shares of land in which the slum residents live. Most of the slums that have been visited for the purpose of this research are illegally occupied by its residents, according to an estimate made by the Mahila Housing Trust (MHT) (cited in UMC, 2012 p.37) around 75% of the slum residents live on illegally occupied land. Said percentage is confirmed by other studies such as Dutta (2000, p. 26) and (Un-Habitat, 2003).

The issue of land tenure becomes even more complex due to the fact that not all the occupied areas are under the legislation of the municipal corporation, but of private actors that might not live in Gujarat since decades²⁷. Moreover, said private owners might have sold or rented shares of land to the slum residents²⁸. However, most of the times the agreements between the owner of the land and the slum residents do not have any legal meaning, due to the fact that there are no registered contracts. The subject is therefore highly controversial since it opens up the right of the municipality to evict the residents from the area²⁹ which results in communities' disruption and creating new issues on where to allocate the slum-dwellers.

The problem of the property rights, as stated by the officers themselves blocks the municipality to plan infrastructure upgrading for WATSAN and other services for different reasons: (I) not having the ownership of the land implies the need of obtaining a permit to work in the areas, which is difficult to achieve for the issue of impossibility to track the owners of the land; (II) as a governmental body the municipality is not willing to encroach the territories and (III) the slum residents are highly uneducated and would not keep the infrastructures in good shape, resulting in inefficient investment of monetary resources.

A solution that was enacted in the past by the municipality was to “notify” the areas, which means that the municipality would not evict the slum residents for a time period of 10 years.

²⁷ As stated by the AMC officers during the individual interviews

²⁸ As it was also stated by some of the respondents in Juhapura

²⁹ As it already happened in other former slum areas such as Kankaria Lake, Vastrapur Lake and the Sabarmati river banks.

Such strategy was extensively employed by the municipal body during the SNP project implementation, as of today, according to the three interviewed municipal officers; the municipality is trying new models to allocate the slum dwellers, such as creating multi-floored buildings to permanently accommodate the slum dwellers. The new strategy, according to the Vasna officer is providing mixed results due to the fact that according to the respondent, the slum residents most of the time do not feel ready to move in an apartment complex due to cultural reasons.

9.1.3 ASSUMPTION ON THE INFLUENCE OF THE INSTITUTIONAL ENVIRONMENT

Overall, the institutional setting in which the customer group and the NGO have to interact is characterized by highly complex issues on which both stakeholders do not have, at present time, much influencing power.

As the NGO assessment and the coordination assessment have shown, the complexity of the issues connected to land tenure are assumed to have a negative influence on two main factors: (I) training the URC workers to be empowered in addressing WATSAN issues [ORG 6-7 in NGO independent variable] and (II) trust building resulting in the inability of the URCs to address WATSAN issues [COM2 indicator in coordination variable].

The first assumption is established upon the fact that if there are no legal options to address WATSAN issues in the slums, or worse, on land tenure, the URCs will have difficulties in developing new capacities or knowledge that will result useful to address these issues.

The second assumption is established as a consequence of the assessment of the coordination variable; it is true that the URC workers are not well trained to address WATSAN issues. Nonetheless, at present time, even if the field workers were highly trained on the institutional framework the chances that most of the households that are eligible for the scheme are a vast minority. Therefore, at this point in time it is likely that even trained workers on the only available WATSAN scheme would not result in higher trust building between the customer group and the NGO.

10 DISCUSSION ON THE RESEARCH

10.1 REFLECTION ON THE MODEL

10.1.1 VARIABLES AND INDICATORS

The set of the identified variables and indicators drawn during the literature review phase prior to the field-research have proven to be useful to set up the data gathering phase in a structured manner, with precise questions and allowing the author to also easily define the order of the data gathering step. Nevertheless, it was clear, during the data gathering phase, which factors would play a major impact in the assessment.

The most relevant factors in the customer group assessment were the “Perception of the problem factor in the independent variable “customer group capacities to achieve collective action for WATSAN” and the “Communication” and “Meetings” clusters of the coordination dependent variable. Whilst discussing over this factors the information gathered provided the author with useful insights on the degree of awareness of the customer group towards the issues and the type of coordination possible between the customer group and the NGO over WATSAN issues.

On the other hand the less impacting indicators were the “Willingness to pay” and “Willingness to invest labour” due to the fact that if a common trait characterizing the interviews was the overall low trust towards the municipality. Albeit low trust was expressed, the willingness to pay and invest labour were generally quite positive, for this reason the results were implemented in the consumers’ groups assessments but are not considered as reliable as the other factors introduced at the beginning of this section.

The NGO capacity assessment did not present any remarkable discovery, the core capacities model proven to be useful in setting up clear capacity assessment of NGO activities.

As regards of the coordination variable, crossing the consumers’ groups and NGO capacities was a useful exercise to clearly state if the NGO is doing a proper work in trying to achieve coordination behaviour with the residents through the use of the URCs. It is especially the case for the NGO assessment due to the fact that if one looks back at the grades assigned, the evaluation is quite positive. However, when the “positive” grades of the NGO assessment are crossed with the “negative” grades of the consumer groups’ capacities, the real coordination potential is manifested, and it was possible to assess in section 8 is overall low. For this reason, it was useful to establish a causal mechanism between the two stakeholders and their characterizing variables.

The presence of the intervening variable was sometimes a source of issues in the assessment, as previously introduced the variable was included after a month of data-gathering, due to the fact that the institutional environment seemed to play a major role in the possible coordination potential of the two stakeholders. Some assumptions were made in section 9.1.3. The author is aware that a proper institutional assessment would have needed more variables and indicators to clearly state which is the influence of the institutional environment on the two stakeholders, but the lack of data on the variable made the author opt for the solution on focusing on the available policies and keeping it as an intervening variable.

10.2 LIMITATIONS IN DATA GATHERING

The quality of the data, especially in the case of the TG interviews is a subject that needs discussion, as it was characterized by three main issues:

1. Gender balance;
2. Alleged lack of leadership figures/CBOs in the communities and
3. Dynamics of interactions, which are bound by culture, could not easily display differentiation between the respondents' answers.

Gender balance

This first issue characterized all the group interviews. During the day very few men were present due to working reasons, leaving only the female population available to interview. Due to security reasons and lack of field-workers/translators willing to work at night the only chance to meet with men during the day was to conduct the interviews in the early afternoon, which would provide slightly more chances of them to be present due to the midday break from work.

The main issue resulting from the absence of gender balance was connected to the degree of awareness of policies or schemes for WATSAN. As the few men that were involved in the interviews have shown, male respondents are slightly more aware of the institutional schemes; whereas the female population is more prepared on practical issues that affected their daily livelihood in coping with inefficient access to WATSAN services.

Lack of leadership and CBOs

The second major issue is the alleged lack of leadership figures or CBOs in all the pockets analysed by this study. Prior to the data gathering phase the two factors were considered of utmost importance due to their deep implications in the "awareness" and "willingness to invest time and money" clusters, the issue in more than one time posed a major challenge on the clearness of the answers provided by the customer group during the NGO assessment. It is unlikely that in the slums of Ahmedabad no community leaders or CBOs are present. The question was continuously asked during the three months of data gathering to different actors: slum residents, URC officers and staffs, workers in the organization and the answers were consistently negative. During the last week in India the author presented the preliminary results to the URC coordinators, in that occasion, the URC coordinator Behrampura whilst discussing the willingness to pay for water taxes stated that there is a "community leader" in his area that is telling the residents that they should not pay for water taxes, because the services of the municipality should be provided free of charge. As it was expected before and during the data gathering phase it was impossible that leadership figures were completely absent in such contexts. Unfortunately the meeting was held during the last day of data gathering and it was therefore impossible to organize an interview with the community leader of one of Behrampura's pockets.

As it was assumed in the theoretical background, at least from what the URC Behrampura stated in that occasion, leadership figures seem to play an important role in influencing some of the capacities presented in the first dependent variable of this study. Due to the fact that it was not

possible to test this assumption through the academic assessment, it was then decided to keep the grading as “not evaluable”.

Cultural interaction

The final challenge is connected to the type of cultural interaction. As it was observed during the visits to the slums it was difficult to obtain individual answers or interviews. Most of the times the respondents would answer in groups, and even by asking the same questions to different peers during the interviews the answer of the “thought leader” would just be repeated, this was especially the case whenever a man was present at the interview.

11 CONCLUSION

This work addressed how the intervention of an external agent (the NGO Saath) could promote and develop coproduction processes for WATSAN between slum residents and the local municipality of Ahmedabad through means of achieving high coordination with the slum residents. The promotion of the coproduction process was assumed to be established if (I) the customer group does hold a set of capacities to achieve collective action to address WATSAN issues; (II) a capable NGO was present to help out the customer group in developing said capacities; (III) a high degree of coordination between the customer group and the NGO, as a result of their interactions was achieved and (IV) the presence of a functional institutional framework for WATSAN management would ease the development of the first three conditions.

Unfortunately, albeit there definitely is a potential for coordination between the TG and the NGO, at this point in time there are many challenges, both at the Target Group; NGO and institutional level that are impeding a successful degree of TG-NGO coordination and potential coproduction process for WATSAN. The following sub-sections will make clear linkages with the sub-research questions established in section 1.2.

11.1 SUB-QUESTION 1

“To what extent does the presence of capacities of the customer group for collective action influence the achievement of high degree of coordination with the NGO?”

Overall the three communities do have some of the capacities needed to achieve collective action for WATSAN issues, for instance awareness of their problems, clear priorities on WATSAN implementation (either infrastructural or bureaucratic) and an alleged willingness to pay for water services or to contribute to infrastructure upgrading in labouring means. On the other hand the communities lack of any form of self-organization: absence of leadership; community based organizations; involvement in other WATSAN initiatives; unskilled workforce and absence of training facilities.

The implications on the lack of some of these factors, especially in the case of the absence of leadership and community based organizations deeply influenced the reliability of the results of other variables, such as the overall coordination achievable with the NGO.

All in all, the slum communities analysed for this study cannot be considered ready to engage collective action behaviour towards WATSAN issues and their management.

11.2 SUB QUESTION 2

“Which capacities are needed at the NGO level in order to promote and develop collective action behaviour in the consumer group and achieve high degrees of coordination with it?”

The URC as a consequence of its assessment can be considered a quite powerful instrument to interact with the communities due to the physical presence. Its positive traits are the good organization of the working body, good internal (Saath) and external networking, a wide array of bureaucratic services delivered to the residents and motivated workers that do try their best to reach out the slum residents and help them so solve their livelihood and bureaucratic issues.

On the other hand the URC lacks any kind of specialized WATSAN figure within its working body, and as the coordination assessment has shown, if trust is present towards the instrument

it is because of the service delivery section of the URC, and not its advocacy building one. As it will be possible to assess in the answer to sub-question 3, the URCs should be very careful on building consistent trust across the areas and should focus on providing assistance on WATSAN i of focusing only in what they excel: service delivery/intermediary services.

11.3 SUB QUESTION 3

“To what extent does the coordination between the slum residents and the NGO result in a functional relationship with the municipality of Ahmedabad for the establishment of coproduction processes for WATSAN?”

The study assumed that functional coordination processes are based upon (I) an organized customer group enacting collective action behaviour and (II) a capable NGO.

The correlation between the capacities of the customer group and the NGO for functional coordination processes provided different insights on the presence of correlation between the three variables. More specifically, 4 main factors seemed to have a greater influence to the overall success of the coordination establishment between the two stakeholders

1. Presence of leadership (Organizational skills cluster in customer group)
2. Presence of a community based organization (Organizational skills cluster in customer group)
3. Organization of the work factor (capacity to carry out service delivery and logistics tasks cluster in NGO assessment)
4. Capacity to adopt self-renew (cluster

The influencing factors, as they were presented in the discussion section over the assessment (8.5). All negatively influenced the following clusters in the coordination variable: (I) capacity development; (II) institutional pressure.

In the case of “capacity development” cluster and due to the nature of the indicator there was no way to opt out from the fact that (I) appropriate leadership or the presence of a CBO in the consumer group (II) a clear preference revelation on WATSAN implementation and (III) the capacity to adopt self-renew and re-organize the organizational culture of the URC were invaluable factors affecting the successfulness mutual capacity development. As the assessment has shown the consumer groups do possess a clear preference revelation, but it is apparently not enough to stimulate the URCs to develop new capacities to address the issues connected to WATSAN services in the three areas. Therefore, if the consumer group could apply pressure towards the URC through more accredited individuals, such as leaders or CBOs representatives it would have been more likely that the URCs would have developed capacities or trained its workers to address the WATSAN issues affecting the areas.

The second instance in which the importance of the independent variables in influencing the successfulness of coordination processes between the two stakeholders is confirmed is the “institutional pressure” indicator. For the same reasons described above the indicator does not consider the possibility of not being influenced by the two stakeholders’ factors. Therefore the complete absence of self-organization in the consumer group and the inability of the URC to develop new capacities in order to act as a more formalized instrument rather than an informal one based on face-to face interaction would probably have led to easier development of

institutional pressure groups against the municipality. For this reason the correlation between the factors influencing the “institutional pressure” indicator is of negative nature.

The correlations between the variables could not be easily proven in the meetings and communication clusters. As it was discussed in section 8.5 they can provide some insights on the relationship dynamics between the two stakeholders, such as the low trust if the workers are not able to solve WATSAN issues. However it is unclear whether the absence of leadership (in the case of the customer group) or the inability to develop new skills of the NGO would not led to (I) formal meetings; (II) inclusion of key actors; (III) deciding upon the frequency of the meetings.

11.4 MAIN RESEARCH QUESTION

“Under which circumstances can an external actor be successful in promoting and establishing WATSAN coproduction processes between the slum residents and the municipality of Ahmedabad?”

All in all, the study did not manage to produce relevant results on whether the presence of coordination between the consumer group and the NGO would have led for prospective coproduction processes between the consumer groups and the municipality of Ahmedabad. The coordination between the NGO and the consumer group is remarkably low and there is still room for improvement for developing the capacities in both stakeholders. Moreover, as it was assessed in section 9, the institutional environment imposed by the municipal corporation of Ahmedabad is characterized by (I) disputes on encroached lands, which affects most of the slum residents and (II) lack of well-tailored policies aimed at the consumer group to provide access to WATSAN services.

Due to the overall scarce results in the coordination processes between the two stakeholders, and the presence of an institutional environment which is not enabling for WATSAN service provision in the slums, it is recommended that the NGO focuses on the leadership and CBO development of the consumer groups. The underlying reasoning lies in the urgent need of structured meetings between the two stakeholders and legitimized representatives on the consumer’s group side enable the two stakeholders to organize in a form of pressuring group against the municipality for better WATSAN policies and schemes.

At the same time the URCs should train their field workers in addressing the bureaucratic nature of WATSAN service provision in the slum to further strengthen the overall coordination potential between the two stakeholders.

Section 11.3 will include a series of recommendations to the NGO in order to further develop the URCs in such a way that the instrument and its workers might be more prepared in the next future to address WATSAN issues in the slum areas of Ahmedabad, and achieve higher coordination with the consumer groups.

11.5 REFLECTION ON THE FINDINGS ACCORDING TO THE REVIEWED LITERATURE

The study tried to create new knowledge on the concept of coproduction by including the presence of an external actor that first had to achieve functional coordination processes with the consumer group and then would act as a broker between the governmental body and the consumers for the coproduction process to be established. Unfortunately the results of the

research did not prove the assumption that external actor intervention in promoting coproduction processes might be, in this specific case, a valuable element.

It must be noted that the results are not generalizable as the study is conducted on a small-N and a limited number of cases. Nevertheless, an important remark must be posed as regards of the established model of the study. For the scope of this research the presence of the governmental body was treated as an intervening variable which imposes its influence through the establishment of a functional institutional environment. As it was assessed in section 9 of this work, the issues imposed by the institutional environment are of paramount importance in the development of capacities and potential coordination between the two stakeholders taken into account by the study. Therefore, further research projects that would like to investigate whether external actor intervention is an added value for coproduction processes by acting as a facilitator should address the potential coordination between three main independent variables: (I) the organized customer group; (II) the capable NGO and the (III) governmental agency.

This reflection is based on the fact that the slum networking project (presented in section 5.3.1) shared some of the traits present of coproduction of processes such as: (I) government taking care of project planning, financing, physical upgrade and regulatory oversight and (II) community residents contributing in monetary means and by participating to the construction monitoring. The external agent (the NGO Saath) was present to provide social/soft services and training to the communities.

Conceptually, the model should then be modified as follows.

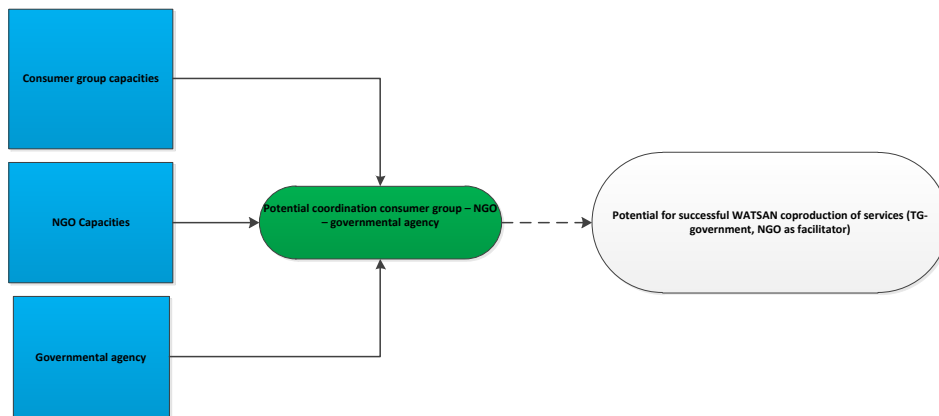


Figure 8: Modification of the conceptual model. Blue [independent variables]; Green [dependent variables]

11.5.1 RECOMMENDATIONS FOR FURTHER RESEARCH

1. As it was assessed in this study, the institutional environment imposed negative influences on the development of capacities at the customer group and NGO level. Therefore it would be useful, in further research projects to firstly investigate which is the vision of the municipality as regards of slum improvement. The case of Ahmedabad displayed how in less than 10 years the political willingness to enact slum-improving projects might change abruptly and impose more challenges on the NGO sector and the slum residents to develop useful capacities to tackle problems such as WATSAN.

2. Further research projects involving coproduction and external actors acting as facilitators should include the governmental agency as one of the main actors and treat it, in a conceptual way, as an independent variable with its own set of capacities and indicators. The coordination shall then be addressed as the potential coordination between the customer group – governmental agency and NGO.
3. The analysis conducted on this work is based on a small amount of cases and a limited number of group interviews due to time constraints, therefore the results are expected to be different if more cases and number of interviewed residents are included.
4. For the same reasons as point 3, it might be interesting to compare NGO activities for prospective establishment of coproduction processes in different cities in India to investigate different NGO approaches in relating with the slum communities.
5. Since the added value of including an external actor to achieve coordination with a customer group to establish in the long-term coproduction processes was not discovered to be a valuable addition, further research projects investigating on the subject should include the presence of control cases without NGO intervention. The underlying reasoning is to address whether even in urbanized contexts collective action capacities to overcome WATSAN issues can be achieved without external intervention.

11.6 RECOMMENDATIONS TO SAATH FOR FURTHER URC DEVELOPMENT

The main focuses of these recommendations are based on the discovered issues that are impeding to achieve successful coordination processes between the customer group and the URCs. These considerations shall be considered mid-term plans, if Saath then manages to implement these recommendations it is assumed that the degree of coordination with the community will increase.

First and foremost, the URCs should train an existing field-worker, or create a new figure specifically trained on WATSAN issues, policies and schemes. The underlying reasoning for this recommendation is to avoid that the field workers stop venturing in some of the areas because they do not feel confident enough, or do not know about the few options provided by the municipality to solve WATSAN issues.

The second recommendation is to focus on providing more civic education, from how to treat waste to how to use properly WATSAN infrastructures. Said objective can be successfully implemented in the case that the URCs begin to act as institutions, implying that the need of formal meetings or workshop held inside the URCs offices or other spaces is a better approach compared to household visits whenever a message or training must be conveyed to the customer group. The usefulness of the household visits was clear: it is a great approach to gain “individual trust” from individuals, but large-scale advocacy building needs more structure, leaders and a more institutional approach in order to be effective.

After a first stage of WATSAN formal meetings, the URCs shall begin to coordinate the new figure and workshops together with the Youth in Development Programme. The objective of this second phase is to identify possible leadership figures and beginning to set up a CBO for WATSAN in the areas. Finally, as the CBOs and leader figures are established, the degree of TG-NGO coordination should become high enough to allow the customer groups to self-advocate for their WATSAN issues with minimal support from the NGO sector.

It is advised to start this process with the Juhapura URCs and residents for two reasons (I) the URC Juhapura is already trying to set up a CBO for education and WATSAN (II) the residents of the area, due to the fact that are already bringing the municipality to the high court for the lack of WATSAN facilities, are definitely the least passive

The recommendations are schematized in Figure 9.

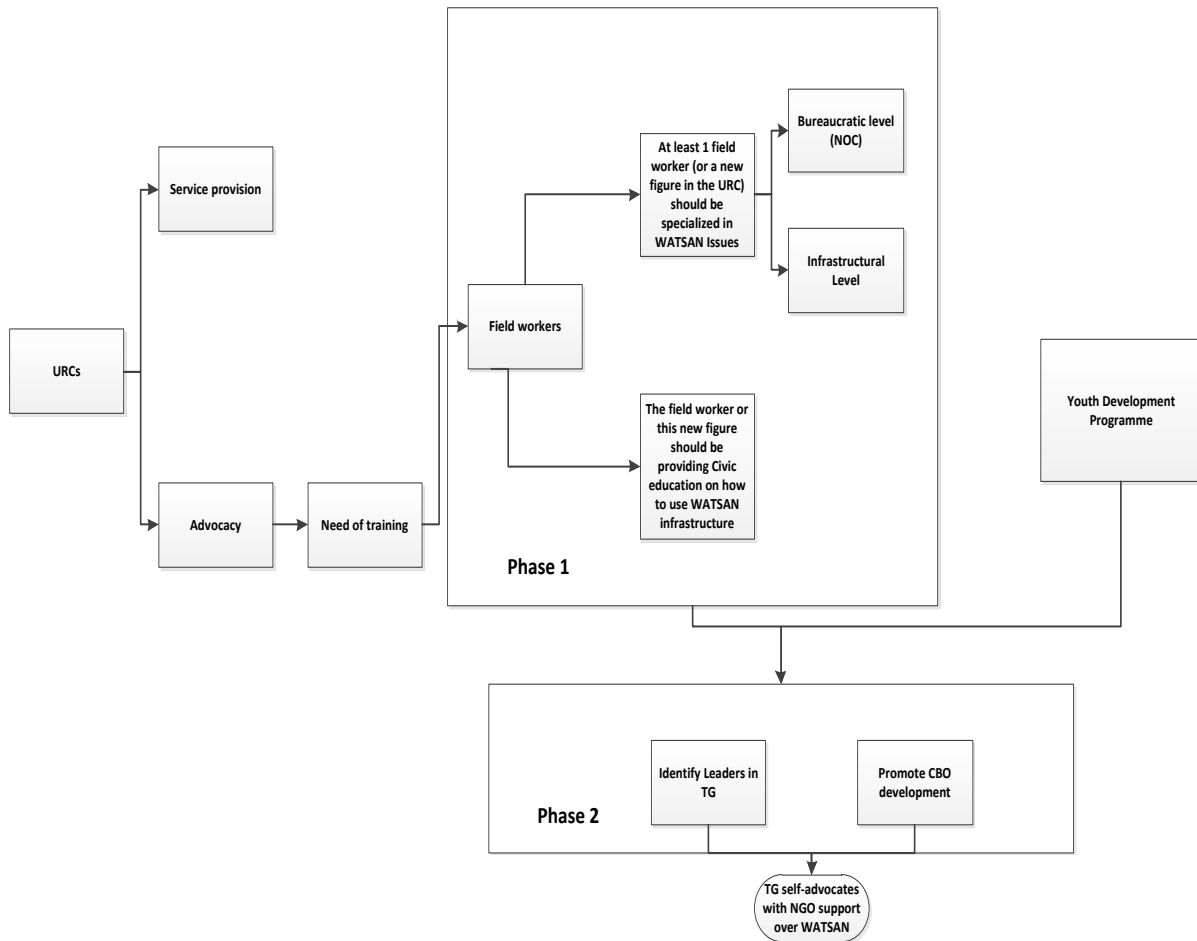


Figure 9: schematization of recommendations to Saath

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APPENDIX

INTERVIEWS' QUESTIONS

CUSTOMER GROUP: ROUND 1

Awareness

- Are you affected by WATSAN issues?
- Do you have a water and sanitation connection at home?
- How do you get your water?
- Who gets the water? How long does it take?
- Do you treat your water before using it (for instance, boiling)?

Priorities for WATSAN

- Is WATSAN a priority for you? What do you think is needed in the area as regards of WATSAN?

Appropriate leadership

- Do you have a community leader here in the area?
- How old is it?
- Does it have connections with the AMC or NGOs?
- How did you elect your leader?
- Do you think that the leader's decisions are good for the well-being of the community?

Presence of CBO and its acceptance

- Is there a community based organization?
- Is the CBO legally recognized?
- Do you think that the works of the CBO are improving your quality of life?

Managerial capacities and training facilities

- Do you have access to training facilities/courses?
- Which type of training to you have access to?

Willingness to pay

- If possible, would you be willing to pay for a WATSAN service which hopefully will ameliorate WATSAN conditions for your family and your neighbourhood?
- Would you be willing to pay for a water tax?

Willingness to invest labour

- Would you be willing to cooperate with the municipality as a labourer for WATSAN infrastructure upgrading, if paid?
- Would you also provide help in the maintenance of the infrastructure?

Self-mobilization

- Has any of you been involved in a WATSAN related project?
- Does anybody have a short story to share as regards of WATSAN problems and how it was fixed?

CUSTOMER GROUP: ROUND 2

- Are you affected by WATSAN issues? If so, which?
- How do you organize yourself when WATSAN issues arise?
- How do you solve WATSAN related disputes?
- How often do you require the help of the municipal corporation?
- How often do you require the help of Saath or other NGOs?
- How often do the municipal officers/counsellors and political leaders come to the Ward?
 - How effective are they in issuing your everyday problems?
 - Did you vote for the local leader in the area?
 - Do you have chances to openly discuss about your issues with them? Do you think it is useful?
- Do you know about the 500 NOC procedure?
- Is it difficult to get the 500 NOC certificate from the municipal corporation?

URC ASSESSMENT

- Capability to commit and engage
 - Do you have meetings over the year about the state of progression of the projects/services provided by the URCs?
 - How often?
 - Do you all participate? Are these meetings proposed by you (field workers) or by your coordinator (URC coordinator) or by the Saath offices?
 - Establish commitment with TGs (Observation?)
 - Do you have meetings with your TG to discuss about the issues and in which way is it possible to solve them?
 - Yes, and what about WATSAN?
 - Are you in contact with CBOs or Target Group leaders about WATSAN issues?
 - If yes, do you include them in the decision-making processes?
 - If there is a lack of a leader figure or CBOs in the TG, do you stimulate the creation of these figures?
- Capability to carry out technical service, delivery e logistic tasks
 - Observation, Desk Research (reports)
 - Do you have access to technology which might be useful to implement WATSAN improvement plans?
- Capability to relate and attract resources of support
 - Is the URCs linked to other initiatives, be it Saath or other organizations/AMC? (definitely looks like so at the moment)
 - Observation, Interview with URC coordinator and field workers
 - Legitimacy of the NGO
 - Mobilization of resources
 - Mobilization of Human Resources
 - Other resources
 - Mainly Desk Research
 - Management of relationships
 - Which kind of relationship characterizes you and the TG? Service provision/cooperation/other?
- Capability of self-renew
 - Do you get an introduction course on how to work in the URC?
 - Do you have training session?
 - If yes, how often?
 - Some examples?
 - As you trained as regards of WATSAN issues?
- Critical awareness of people's needs
 - According to you, which are the most important issues to be tackled for your target group? It does not have to be WATSAN related.

MUNICIPALITY

- Which are the future plans for this ward?
 - As in, which are the priorities of the municipality?
- Which are the main challenges, as a governmental agency, that you are encountering in enacting and/or implementing new strategies in the area?
- Which are the communication channels you use with the slum residents?
- Are you satisfied on the quality and quantity of the communication with the slum residents?
- Do you have connections with the NGO sector? Do you use the NGO connections often? Are you satisfied with the quality of communication with the NGO sector?
- Could you please briefly describe the active public-private-partnerships (PPP) active in the area?
- **After explaining coproduction**
 - Would the municipal corporation be interested in such approach?
 - Do you think it is feasible as regards of the constitution of new infrastructures in the area since it is similar to some of the characters of the Slum Networking Project?

