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Impact of Community-led Total Sanitation on Women's Health in Urban Slums: A Case Study from Kalyani Municipality

Preetha Prabhakaran, Kamal Kar, Lyla Mehta and Sayantan R. Chowdhury

June 2016

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IMPACT OF COMMUNITY-LED TOTAL SANITATION ON WOMEN'S HEALTH IN URBAN SLUMS: A CASE STUDY FROM KALYANI MUNICIPALITY

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Contents

	Acknowledgements	3
	Abbreviations	4
	Executive summary	5
1	Introduction	9
2	Gendered aspects of health and sanitation in urban slums and the rationale for this study	11
3	Background of Kalyani and study objectives	14
	3.1 The context of Kalyani	14
	3.2 History of CLTS implementation in Kalyani	16
	3.3 The process of CLTS implementation in Kalyani	17
4	Study methodology and methods	19
	4.1 Study sites	20
	4.1.1 Harijan Para	20
	4.1.2 Vidyasagar Colony	22
5	Key findings of the study	24
	5.1 Physical, social and psychological health and wellbeing	24
	5.1.1 Disease burden	24
	5.1.2 Menstrual hygiene	26
	5.1.3 Social status	27
	5.1.4 Awareness	27
	5.1.5 Daily routine	28
	5.1.6 Education	30
	5.1.7 Livelihoods and income	30
	5.1.8 Security and convenience	31
	5.1.9 Collective action	31
	5.2 Empowerment	32
	5.2.1 Joint decision-making within households	34
	5.2.2 Emergence of women as Natural Leaders	34
	5.2.3 Enhancing opportunities in public space	35
	5.3 External environment	37
	5.3.1 Role of the Municipality/governance	37
	5.3.2 Access to health services and multisectoral linkages	38
6	Challenges	39
7	Conclusions	40
	References	43

Boxes

Box 5.1	'Building a toilet was one of the best decisions of my life'	29
Box 5.2	'ODF is my reward': contributions of a Natural Leader	35
Box 5.3	'Improving our sanitation has given us an identity'	36

Figures

Figure 5.1	Diagrammatic representation of factors contributing to physical, social and psychological health and wellbeing of women in Kalyani	24
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Abbreviations

BSUP	Basic Services for the Urban Poor
CBO	community-based organisation
CLHI	Community-led Health Initiative
CLTS	Community-led Total Sanitation
CPI(M)	Communist Party of India(Marxist)
CSIP	Calcutta Slum Improvement Project
DFID	Department for International Development
FGD	focus group discussion
HHW	honorary health worker
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KII	key informant interview
KMA	Kolkata Metropolitan Area
KUSP	Kolkata Urban Services for the Poor
MDG	Millennium Development Goal
NGO	non-governmental organisation
ODF	open defecation free
PI	personal interview
PWD	Public Works Department
SBA	Swachh Bharat Abhiyan
SDG	Sustainable Development Goal
VIPP	Visualisation in Participatory Programmes
WSUP	Water & Sanitation for the Urban Poor

Executive summary

This Evidence Report seeks to understand the health and other impacts of slum women's access to sanitation through the Community-led Total Sanitation (CLTS)¹ approach. It also examines the process through which open defecation free (ODF) status was attained in two different slum colonies, the resulting health impacts and the collective action that took place around both sanitation and other development benefits. The study was conducted in the slums of Kalyani, a Municipality town located 55km north of Kolkata, the capital city of West Bengal state in India. From an area plagued with rampant open defecation, the slums of Kalyani were transformed into the first ODF town in India in 2009. This was achieved through the CLTS model that focused on motivating the community to undertake collective behaviour change to achieve 'total' sanitation and an ODF environment. This was in sharp contrast to earlier, top-down approaches to the provision of toilets, which had failed to ensure ownership or usage by the community. The benefits of CLTS to the community were not limited to changed sanitation behaviour and an end of open defecation – there were significant development and health gains beyond sanitation. Women's health in this study has been viewed not just in terms of the presence or absence of disease burden on the physical health of women but also in terms of their socio-psychological wellbeing resulting from reduced risks and a wide range of benefits accruing from better sanitation and hygiene practices and facilities. The study also focused on exploring the extent to which the CLTS process can be said to have empowered women. As experiences of good health and wellbeing are affected by factors in the external environment, namely the role of the local government, women's access to health services and the involvement of multiple sectors, these issues were also considered, in order to understand the overall health status and experiences of women in Kalyani slums.

The study had the following objectives:

1. to understand the impact of improved sanitation and specifically of the CLTS process on women's physical health in terms of reduction in disease burden as well as the social and psychological wellbeing of women in selected slums of Kalyani;
2. to understand the impact of the CLTS process on aspects of women's empowerment and its effect on women's wellbeing and overall health in selected ODF slums of Kalyani;
3. to understand the external environmental factors that have played a key role in improving sanitation in Kalyani and therefore the health of women.

It was conducted in two slum colonies in Kalyani, Vidyasagar Colony and Harijan Para, which were chosen because they were part of the initial CLTS pilot and were the early adopters of the approach. They also allowed the researchers to capture the experiences of two different categories of migrants residing in the slums (namely, Bengali-speaking Hindu refugees from Bangladesh and Hindi-speaking *dalit* migrants from two other states in India, Jharkhand and Uttar Pradesh). This study seeks to capture an emic account of women's health and wellbeing in the Kalyani slums, building on the accounts and perspectives of local women. During the investigation the research team employed a combination of methods for collecting data related to the study objectives. These methods included: focus group discussions (FGDs) with a wide range of women and adolescent girls, including some of the leaders who mobilised the community to take action to change their sanitary and hygiene behaviours; personal interviews (PIs) with some women who played key leadership roles during the

¹ CLTS is a methodology designed to trigger communities to stop open defecation and gain access to sanitation; it was developed by Dr Kamal Kar in Bangladesh in 2000. Since then, CLTS has been rolled out in 69 countries across the globe. Today it forms part of the national strategy of more than 25 countries in Asia, Africa and Latin America. The CLTS methodology involves a series of participatory exercises that empower the community to visually analyse their sanitation situation and the various pathways of faecal-oral contamination in their everyday lives.

CLTS activities; key informant interviews (KIIs) with key institutional actors in order to understand the role of the Municipality in facilitating the adoption of sanitation and hygiene behaviour by the community; and participant observation.

Findings

When CLTS was implemented in Kalyani, open defecation was rampant in almost all slums of Kalyani and consequently there was a high incidence of diseases among the slum children, a relatively high level of infant mortality and maternal mortality rates, a lack of education and awareness about basic hygiene, etc. However, the situation changed drastically after the CLTS process. Overall, women across all age groups from both the slum communities reported reduced incidence of illnesses such as diarrhoea and other health problems, both personally and in their families, especially among the children. This has led to fewer hospital visits and an increase in disposable incomes, due to reduced medical expenditure. Women stated that, with the presence of toilets in their homes, their experiences during menstruation had become more pleasant as they had a private and clean space in which to maintain their hygiene. Women across all age groups expressed a sense of security, safety and convenience due to the presence of toilets in their homes.

Other positive benefits included the time saved for undertaking other activities; the ability to carry out their tasks and daily activities in a more organised manner; and a positive outcome regarding their earnings and livelihood opportunities. Most women expressed a feeling of pride and higher social standing with the ownership of a toilet. Greater consciousness about sanitation had led to an improvement in other living conditions and other collective efforts in both the slum communities. In Harijan Para, women's collective efforts had succeeded in eradicating alcoholism in the community and had led to men realising that they needed to improve their lives. Women had played a lead role in making their communities ODF and this experience had enabled them to exercise agency in many areas of their lives, both within their households and in the community. Women in Harijan Para said that this community-led action had empowered them in many ways and for the first time they were included in decision-making processes in their own homes or in the community, which had given them greater self-confidence.

When CLTS was implemented in the slums of Kalyani, the Municipality played a very limited role in the welfare of the slum communities, not least because the residents were considered illegal occupants. The success of the community members in improving their sanitation status on their own, and the national recognition that the local communities and the Municipality received, resulted in the Municipality being persuaded to pay more attention to the needs of the slum population. As a result, and quite uniquely, the slum communities are now included in urban infrastructural design and planning (e.g. connections to the main sewerage line).

Kalyani stands out because it was the first successful attempt to apply CLTS to an urban context with the aim of fostering collective behaviour change as a strategy to stop open defecation and promote hygiene practices. This led to further improvements to the slum colonies and access to basic services, and to some examples of tenure security. It is also a unique case because in urban sanitation programmes, the needs of the urban poor, especially slum dwellers who are considered unauthorised occupants of the land, are often ignored and bypassed. In urban planning processes, the tendency has been to adopt a technocratic approach relying on standardised top-down solutions, which have usually failed because people either did not use the toilets provided to them or used them for other purposes. CLTS was a departure from the traditional approach of 'prescribing solutions' to the urban poor. Instead, it focused on enabling community members to mobilise for collective action to address their own sanitation needs. Once the community collectively started achieving their sanitation goals, they extended this spirit and energy to gain access to other basic services.

The case of Kalyani is also unique because of several factors that worked in favour of efforts to achieve the success that it enjoyed and still enjoys. One was the political will exercised by the Chairman of the Municipality, and the presence of committed health professionals in his team and of educated ward councillors who understood the benefits of a community-led approach to achieving sanitation outcomes. Second was the direct involvement of Kamal Kar, pioneer of the CLTS approach, in implementing CLTS in Kalyani, with the support received from the UK's Department for International Development (DFID), and the implementation of the Kolkata Urban Services for the Poor (KUSP) project that facilitated the CLTS process at that time. Third, Kalyani was a planned municipal town with upper-middle-class residents, and these families of course were very anxious to have open defecation in their surrounding areas eradicated and they were willing to extend any support to the Municipality for this purpose. There was also enough physical space to build toilets, unlike in inner city slums.

Despite these unique features, Kalyani holds valuable lessons for other Municipalities. These include the fact that local institutional actors must have the political will and necessary commitment to achieving long-term change, as well as the ability to mobilise resources and capacity to work with the community. The Kalyani example also effectively demonstrates the very important role that institutional actors such as politicians, administrators, health workers, engineers, contractors, etc., can play in achieving successful outcomes, not as direct implementers of a sanitation programme or as providers of infrastructure, but as facilitators supporting the community to design and implement its own initiatives.

The challenges in sustaining the achieved health outcomes in Kalyani are numerous, however. There are several issues that potentially could reduce or negate the health benefits gained from CLTS, or even adversely affect the health of the residents, if not addressed urgently. These involve the safe disposal of confined excreta, which is currently done in a manner that is potentially hazardous, both for the environment and for the health and the dignity of the *dalits* who are engaged in manual collection and disposal of human waste in the slum communities. Technology upgrading is also needed, to avoid contamination of water and to ensure that people move up the sanitation ladder in terms of both facilities and behaviour change. The issue of land ownership is very contentious but must be tackled if people are to take ownership and invest in better sanitation facilities. The government programmes also need to be better targeted in order to cover entire populations and support them to upgrade their technologies so as to improve their sanitation and hygiene behavioural practices.

In conclusion, Kalyani shows that it is possible to address sanitation challenges through health initiatives in an urban slum area. Solving the sanitation problem requires a multisectoral integrated approach, with the engagement of multiple stakeholders. At the centre of any initiative, however, there must be the community, who have to take on ownership and accountability for their sanitation and hygiene behaviour and practices. In the case of Kalyani, the role of local women was crucial and they became powerful agents of change. Sanitation also needs to be viewed as a public good that requires collective behaviour change (also on the part of bureaucrats) and action. The achievement of 'total' sanitation or an ODF environment should not merely stop at the construction of individual toilets, but issues such as sustainability, waste containment, livelihood security, gender empowerment, etc., need to be part and parcel of all programmes. Kalyani also provides a strong case for collective community demand and action in activating and strengthening formal health delivery systems and integrating health programmes with sanitation initiatives. The direct outcome of good sanitation is better health, and placing sanitation within health departments (as opposed to departments for infrastructure, rural development, etc.) can make sense. Still, a narrow focus on health benefits can mean overlooking the multiple benefits that sanitation programmes can offer in terms of gender equality. These include issues concerning dignity, security, enhanced wellbeing, education, livelihood security and

bargaining power of women, etc., that cannot be captured within a narrow health lens. These non-health benefits are significant and can also go a long way to helping the realisation of several Sustainable Development Goals (SDGs) and at the same time may enable the achievement of health benefits. Finally, an enabling external environment and conducive institutional context are crucial to helping realise these benefits over and above the collective action undertaken by women themselves.

1 Introduction

This Evidence Report seeks to understand the health and other impacts of slum women's access to sanitation through the Community-led Total Sanitation (CLTS)² approach. It draws on findings of a study conducted in the slums of Kalyani, a Municipality town located 55km north of Kolkata, the capital city of West Bengal state in India. From an area plagued with rampant open defecation, the slums of Kalyani were transformed into the first open defecation free (ODF) town in India in 2009. This was achieved through the CLTS model that focused on empowering the community to bring about collective behaviour change in order to achieve 'total' sanitation and an ODF environment. This was in sharp contrast to earlier approaches that focused on top-down toilet construction that had failed to ensure ownership or usage by the community. The benefits of CLTS to the community did not remain limited to changed sanitation behaviours and an end of open defecation; it also achieved development and health gains beyond sanitation.

The findings of this study indicate that in the ODF communities of Kalyani, women played a lead role in initiating and driving sanitation and hygiene behaviour change in their communities during the CLTS process. This resulted in better health outcomes, due not least to the benefits of improved sanitation. Furthermore, other changes, which included the reduction of women's safety risks, an increase in their social status and involvement in decision-making and leadership processes both within the household and the community, led to the enhanced social and psychological wellbeing of women, contributing to their overall health. Women's health in this study has been viewed in terms of not just the presence or absence of disease burden on women's physical health but also their socio-psychological wellbeing. This study seeks to capture an emic account of women's health and wellbeing in the Kalyani slums, building on the accounts and perspectives of local women.

It shows that the benefits of sanitation are not limited to merely gaining access to sanitation; the momentum built within the community in the process of CLTS triggering and the 'Natural Leaders'³ who emerge during the process, can be drawn on for engagement in several development projects. In Kalyani, the community's success in improving their sanitation status, and the national recognition that the Municipality received as a result, paved the way for the Municipality to engage more meaningfully with the slum dwellers by extending basic services to them. The report also provides wider lessons for sanitation in urban and peri-urban contexts and it highlights the importance of recognising the numerous benefits of sanitation interventions which go beyond narrow health outcomes focused largely on diarrhoea reduction (see Loevinsohn *et al.* 2014).

² CLTS is a methodology to trigger communities into stopping open defecation, and gaining access to sanitation. It was developed by Dr Kamal Kar in Bangladesh in 2000. Since then CLTS has been rolled out in 69 countries across the globe. Today it forms part of the national strategy of more than 25 countries in Asia, Africa and Latin America. The CLTS methodology involves a series of participatory exercises that empower the community to visually analyse their sanitation situation and the various pathways of faecal-oral contamination in their everyday lives. CLTS involves four stages, the first of which is the pre-triggering stage of rapport-building and understanding the needs and priorities of the community. During the triggering stage, the community members are taken through various tools and techniques to enable them to collectively analyse and develop a community action plan to stop open defecation. The third stage is the post-triggering follow-up phase when the community is guided and supported to explore and adopt appropriate technologies, and the last one is the post-ODF stage during which the community is supported to sustain their collective behaviour change and facilities (Kar 2010; Kar and Chambers 2008; Mehta and Movik 2011). Often the creation of ODF communities has led to livelihoods improvements in terms of higher incomes and better productivity, and people-initiated development activities within the community due to increased cohesiveness and community action (Milward, Pradhan and Pasteur 2014; Bode *et al.* 2006).

³ Natural Leaders is a term used in CLTS literature to refer to people from the community who emerge during the triggering process to take the lead in making their village/community ODF.

The objectives of the study, therefore, were:

1. to understand the impact of improved sanitation and specifically of the CLTS process on women's physical health in terms of reduction in disease burden; and the social and psychological wellbeing of women in selected slums of Kalyani;
2. to understand the impact of the CLTS process on aspects of women's empowerment and its effect on women's wellbeing and overall health in selected ODF slums of Kalyani;
3. to understand the external environmental factors that have played a key role in improving sanitation in Kalyani and therefore the health of women.

This report is structured as follows. The next section draws on the existing literature to outline the gendered aspects of health and sanitation in the context of urban slums in India. Section 3 provides a background to CLTS implementation in Kalyani and describes the specific objectives of this study. Section 4 explains the methodology pursued and Section 5 sets out the findings of the study. Section 6 briefly outlines the challenges identified and the final section concludes the discussions and arguments made throughout the report.

2 Gendered aspects of health and sanitation in urban slums and the rationale for this study

Despite the concerted efforts and investments made by national and international actors during the Millennium Development Goal (MDG) era, a sanitation crisis still looms large globally. Over one-third of the world's population, or 2.4 billion people, still lack access to improved sanitation facilities and of this total, almost one billion (946 million) people practise open defecation (WHO and UNICEF 2015). Two-thirds of the population defecating in the open live in South Asia, with almost 50 per cent residing in India alone (*ibid.*). More than 792 million people in India lack improved sanitation and 44 per cent of the population (approximately 550 million people) defecate outside (*ibid.*).

The practice of open defecation adversely affects the health, economic status and quality of life of millions of women, men and children in India (Mara *et al.* 2010; Kumar, Kar and Jain 2011; Nagdeve 2002; Spears 2013; Fewtrell *et al.* 2005). More than half (60 per cent) of the environmental health burden in India is a result of lack of sanitation and water contaminated by faeces and other materials (Chaplin 2011). Poor sanitation and hygiene are related to infectious diseases such as diarrhoea, intestinal worms, trachoma, schistosomiasis, ascariasis, dracunculiasis, lymphatic filariasis, etc., contributing substantially to child stunting and mortality (Esrey *et al.* 1991; Clasen *et al.* 2012; Mara *et al.* 2010; Cairncross *et al.* 2010; Blossner and de Onis 2005; Victora, Adair and Fall 2008). Diarrhoea directly related to faecal-oral contamination is said to account for the deaths of more than 1.4 million children below the age of five worldwide (WHO 2014). Poor sanitary conditions affect people's incomes not only in terms of increasing medical expenses but also as a result of the consequences of loss of school and working days and reduced productivity, which moreover has a long-term impact on a country's gross domestic product (GDP) growth (Water and Sanitation Program 2010). In urban areas, the problems of inadequate sanitation are even more acute, as the rapid urbanisation without proper planning and institutional support has led to growing slum populations lacking space and safe sanitation as well as other facilities (Prasad 2013; McFarlane 2008; Agarwal 2011; Chaplin 1999).

Urbanisation in India is characterised by a rapid growth of the urban population intensified by rural-to-urban migration and the reclassification or de-classification of urban zones (Ruet, Zerah and Saravanan 2009). According to the 2011 Census data,⁴ 31.16 per cent of India's population live in urban areas and by the year 2030, it is estimated that urbanisation in India will reach 50 per cent (UNDP 2009). This high rate of population growth in urban cities has been accompanied by an equally or faster growing rate of informal settlements or squatter populations (Beinecke 2011), many of whom live 'illegally' 'in areas deemed unfit for habitation' (Prasad 2013). They lack access to basic civic services, have no social security cover and live constantly under the threat of eviction or destruction of goods (UNDP 2009). The pattern of urbanisation in India has been further underlined by rising urban poverty as this significant proportion of urban slum populations lack access to employment opportunities and adequate income, which further exacerbates their poor living conditions (Sujatha and Janardhanam 2010).

The health risks and vulnerabilities are severe for these slum dwellers, whose precarious living conditions are defined by a lack of inadequate water and sanitation facilities. Added to these are factors such as overcrowding, environmental pollution, limited or no access to other basic sanitary infrastructure and services such as drainage, solid waste management,

⁴ India's urban population grew from 285 million in 2001 to 377 million in 2011. The country's slum population during the same period increased from 52.4 million in 2001 to 93 million in 2011 and is projected to grow by 5 per cent per year, according to the Census of India data (see Government of India 2011).

roads, etc. (Prasad 2013; Loughhead, Mittal and Wood 2000; Beinecke 2011). Open and overflowing drains during the monsoon season increase the incidence and severity of diseases experienced by the slum dwellers. Faecal contamination in these contexts has been found to be at a dangerous level, contributing to high rates of cholera, typhoid and intestinal parasites among both adults and children (Muoki, Tumuti and Rombo 2008). The urban poor's unequal access to urban infrastructure starkly represents unequal power relationships and structural inequalities that form part of the urban planning and allocation processes (Morales, Harris and Åberg 2014).

Women and girls in developing countries shoulder disproportionate cultural and biological burdens and thereby health risks in relation to inadequate sanitation (Hartmann *et al.* 2015; Mehta 2013). Women and children are located at the most disadvantageous position within these emerging power structures in urban slums (Khosla 2009). Women's lack of access to clean and safe toilets render them vulnerable to gender-specific health consequences in terms of diseases and infections. These arise from delayed and unhealthy urination and defecation practices and poor menstrual hygiene, as well as risks related to gender-related violence and psychological stress because of shame and fear affecting their overall wellbeing (Khosla 2009; Joshi, Fawcett and Mannan 2011; Sahoo *et al.* 2015; Kulkarni, O'Reilly and Bhat 2014). In addition to being exposed to contamination in a high-risk environment, women in urban low-income settlements are often excluded from maternal and other health-care services, resulting in a higher incidence of anaemia, which has an impact on child morbidity and mortality and in extreme cases leads to maternal mortality (Khosla 2009).

Recent studies reveal that women's gendered health risks due to open defecation practices include 'increased maternal mortality risks from unhygienic birthing practices and poor infection control, uro-genital tract infections and urinary incontinence and chronic constipation' (Mudey *et al.* 2010, Fisher 2006 and Cheng *et al.* 2012, cited in Sahoo *et al.* 2015). There is also emerging evidence to show that women experience severe psychosocial stress from the shame or fear of having men see them defecate openly or the risks of physical and sexual violence, especially in urban settings (Fisher 2006; O'Reilly 2010). Studies show that women cope with their gendered experiences of menstruation and of having to defecate outside their homes by adapting certain behaviours and activities. These include: restricting intake of food and fluids at night to avoid leaving their houses for fear of being attacked; defecating either before dawn or after dusk so that they will not be seen by others, especially men; walking long distances to find a private and safe place; and defecating in groups or accompanied by a relative (Fisher 2006; McFarlane 2008; Sahoo *et al.* 2015; Kulkarni *et al.* 2014; Muoki *et al.* 2008; UN-Habitat 2006; Khosla 2000; O'Reilly 2010). All these experiences are stressful and represent additional burdens on their limited time and energy while they juggle various household and livelihood responsibilities. The study by Sommer, Kjellén and Pensulo (2013) describes the lack of safe and hygienic spaces as well as privacy available to women during menstruation to change, clean and dry their materials in a comfortable manner. The lack of safe facilities in schools also increases school absenteeism for girls in many countries (see Mahon and Fernandes 2010; Summer and Kirk 2008). All these issues indicate the multiple impact pathways for women and girls that arise through the absence of good sanitation. This indicates that it is important to examine these numerous issues and factors in sanitation interventions in order to go beyond narrow health outcomes largely focused on diarrhoea reduction (see Loevinsohn *et al.* 2014).

Sanitation policies and strategies for the slum settlements have been largely ignorant or neglectful of the diverse needs, vulnerabilities, power structures and gendered dynamics of different social groups within the urban social and political landscape (Joshi *et al.* 2011). The process of urbanisation has been shaped by the dominant development discourse, patterned around a particular set of power relations between institutions, socioeconomic processes, forms of knowledge and technological factors (Escobar 1995). Privileges and exclusions are based on one's position of power and in this top-down approach those at the bottom of the

pile tend to be excluded (*ibid.*). Urban development was guided and shaped more out of political considerations than equity or the development needs of different groups (Chaplin 2011). Even when they were included, development planning for the urban poor took on a welfarist, elitist and paternalistic approach (Remenyi 2004), where they were seen as 'problems' to be solved by development 'experts' (McKay 2004) rather than viewing people's own perspectives and solutions. This macro environment has characterised poor people's experiences of sanitation in slums and has in turn affected health, education and livelihood outcomes.

Since the late 1990s, with neo-liberalisation and the idea of good governance taking centre stage, ideas of decentralisation and the delegation of authority to local governing bodies has gained traction. These wider changes brought self-governance, human rights, partnership and the role of civil society to the centre of development (McGee 2002), and expanded the role for people's participation in development. In the context of urban sanitation in India, there has thus been a greater emphasis on community mobilisation and participation in all development activities of non-governmental organisations (NGOs) and development agencies (McFarlane 2008).

Building on the 73rd and 74th amendment of the Indian Constitution which transferred power to local institutions such as Municipalities to plan and implement their own initiatives (Ruet *et al.* 2009), Municipalities have sought to improve political accountability and to focus on the greater involvement of local people (*ibid.*). At the same time, in 2000, CLTS had taken off as a methodology to empower people to stop open defecation and was gaining popularity through its demonstrated success in various countries (Kar and Chambers 2008). The Kalyani Municipal leadership was unique and exemplary in using its autonomous political position as well as the new developments in the sanitation sector to rewrite the Municipality's own sanitation history. The achievement of ODF environments in all the 52 slums of Kalyani not only enhanced the sanitation situation but also led to people-centred development benefits for the whole township, to which we now turn.

3 Background of Kalyani⁵ and study objectives

3.1 The context of Kalyani



A 'kuccha' house in Vidyasagar Colony.
Photographer: © Sayantan R. Chowdhury/CLTS Foundation.



A basic toilet built in 2006 (yet to be upgraded).
Photographer: © Sayantan R. Chowdhury/
CLTS Foundation.

Kalyani is one of the 37 Municipalities under the Kolkata Metropolitan Area (KMA) of West Bengal with a population of 100,000⁶ of which approximately 50 per cent live in slums. Kalyani was conceived as a satellite township in the late 1950s to accommodate a population of under 50,000, mostly from the middle-class and economically well-off sections. The liberation war of 1971 saw a sudden influx of refugees from erstwhile Pakistan (now Bangladesh) into West Bengal when a large number of persecuted Hindus fled to India in search of refuge. Added to this, Kalyani also witnessed the arrival of many migrants from other Indian states such as Bihar, Jharkhand and Uttar Pradesh. Soon the population of Kalyani exploded, much beyond the capacity that it was designed to cater for, and migrants set up temporary settlements around the city's periphery and took up *ad hoc* and informal work as daily wage labourers, resulting in a growing slum population. The slums lacked access to the most basic services, as their inhabitants were treated as unauthorised occupants of land and the Municipality did not (or legally could not) extend sewerage, water pipeline or electricity to them. This resulted in a situation where nearly half of the population in Kalyani consisted of people living around the planned city in deplorable conditions with no roads, water supply, electricity or sanitation facilities. Open defecation was practised rampantly in all the 52 slums of Kalyani, resulting in several health hazards for the population, especially during the monsoon period.

⁵ The details in this section have been gathered from personal interviews with Dr Shantanu Jha, former Chairman of Kalyani Municipality, and Dr Kasturi Bakshi, former Municipality Chief Health Officer. Dr Kamal Kar, who is one of the co-authors of this report and who has been personally involved in the implementation of CLTS in Kalyani, has also provided a description, based on his personal experiences, of the events that took place at that time. Notes from his Kalyani workshop report of 2006 have also been referred to.

⁶ As per Government of India (2011).

During this time, the pro-poor, left-wing government led by the Communist Party of India(Marxist) CPI(M) had been in power in West Bengal since the 1990s, and had gained political mileage as a result of policies directed towards the provision of infrastructure and services to the poor. These included the construction of roads, trains, water pipeline, sanitation facilities, etc., even in the unauthorised slums. Additionally, investments were mobilised for various urban development projects, one of them being the Kolkata Urban Services for the Poor (KUSP). The KUSP programme was launched in 2003 to cover almost all local bodies under the KMA. It was supported by the UK's Department for International Development (DFID) and was designed to provide basic services to approximately 2.5 million urban poor people, in order to improve their quality of life in a sustainable manner. These services focused on strengthening the capacity of health service delivery and the construction of toilets in order to end open defecation to improve environment sanitation (Kar 2006). Though community participation was a component of some of these projects, in reality local people were just passive recipients of services and were not involved in any decision-making processes. The ineffectiveness of this approach was evident in similar programmes all across the country, and Kalyani was no exception, as household and public toilets built under this project (including the community ones), went unutilised or were used for other purposes than those for which they were built, as there was no ownership from the community (*ibid.*). Thus, despite the huge investments⁷ made in urban sanitation infrastructure under the various externally driven projects, open defecation continued to be practised widely in Kalyani.



An upgraded 'pukka' toilet in Vidyasagar Colony.
 Photographer: © Sayantan R. Chowdhury/CLTS Foundation.

CLTS was introduced in the Kalyani slums in 2006 as part of the Community-led Health Initiative (CLHI) pilot programme under the KUSP project funded by DFID. This was the first time in India that a community-driven approach was adapted within any urban sanitation project. Until then, all the urban sanitation campaigns in India had been driven by a top-down infrastructure-oriented approach that focused on either providing subsidies or constructing toilets as a means to end open defecation (Jewitt 2011). As a result, not only did entire settlements become ODF in Kalyani, but it also emerged as a replicable example for successful urban CLTS (and sanitation) for thousands of Municipalities in the country. Kalyani soon served as a learning laboratory for sanitation initiatives not just in India but also in other countries in the world and has been documented as a case study for discussions on urban sanitation and development. It must be stated that part of the success in Kalyani may be due to the fact that the settlement pattern in Kalyani is not as dense as in most inner city urban slums. It instead resembles a peri-urban location with more space to construct toilets.

⁷ In Kalyani, before the implementation of CLTS, the Municipal Development Projects had built 700 toilets costing INR5,000 (US\$80) each; the Refugee Rehabilitation Department built 3,300 toilets costing about INR8,500 (US\$130) each; KUSP built 365 toilets costing INR9,900 (US\$150) each; and more than INR35 million (about US\$1m) was spent on constructing household toilets for free.



The fate of toilets earlier provided under government programmes. *Photographer:* © Kamal Kar/CLTS Foundation.

3.2 History of CLTS implementation in Kalyani

CLTS was implemented as a pilot project in the Kalyani slums in 2006. Until then CLTS had remained largely confined to rural areas, with no attempt made to implement it in urban communities. Several key factors played a key role in CLTS seeing the light of day in Kalyani. Dr Shantanu Jha, the first Chairman of the Kalyani Municipality, who served three terms, had a lot to do with this success. Dr Jha's academic and professional background as an entomologist set him apart from other Municipality chairpersons. His experience in agricultural studies and practice had also instilled in him an understanding of various participatory approaches to secure the community's involvement and ownership in development activities. Dr Jha's exchanges with Dr Kamal Kar during that period, both as a friend and a professional associate, familiarised him with the successes of the CLTS model in rural areas in many countries. Kamal Kar, who was then an adviser and consultant to the Calcutta Slum Improvement Project (CSIP), was motivated by Dr Jha's keen interest and he advocated for CLTS to be piloted in Kalyani. DFID officials leading the KUSP in India, such as Sue Phillips and Richard Montgomery, were also supportive, having seen its success in rural contexts in other countries. This set the ball rolling for the CLTS pilot in Kalyani in 2006, funded by the DFID New Delhi office and supported by KUSP and Kalyani Municipality.



Dr Shantanu Jha receiving the National Urban Water Award from the former President of India, Smt. Pratibha Patil. Standing at the extreme right is Dr Kasturi Bakshi. *Photographer:* © Shankar Dhar.

The implementation of CLTS in Kalyani changed the face of Kalyani by ensuring 100 per cent utilisation and maintenance of all the existing sanitation facilities alongside the construction and usage of new facilities by the people themselves. What started as a small pilot project in five slums of Kalyani was very successful and in a little less than three years, all the 52 slums of Kalyani were declared ODF through CLTS. In 2009, Kalyani was presented with the National Urban Water Award by the President of India, Smt. Pratibha Patil, for becoming the first ODF urban town in India. Even though one can witness sustained ODF behaviour among the communities, utilisation of government-provided⁸ infrastructure is higher than in any other Municipality in the state.

3.3 The process of CLTS implementation in Kalyani

The CLTS implementation process involved all stakeholders, covering all departmental heads of the Municipality, elected municipal councillors, local NGOs and community-based organisations (CBOs), health workers, as many community members as possible, including local community leaders. Natural leaders who emerged from the triggering process in the first few slums became assets of the Municipality and were systematically mainstreamed as informal agents of change to enable scaling-up of CLTS in other slums.

Breaking the mindset of the politicians, i.e. the elected people's representatives, was one of the biggest challenges. Though Dr Jha could wield his political power and force his decisions on the ward councillors, he knew that they would never take ownership unless they bought into the CLTS model. He had to convince them that it was more important to improve the standard of living of the urban poor than to keep communities as passive recipients of government dole in order to ensure their 'vote bank'. In this case, the vote bank was the hapless and resourceless refugees who had just come 'on foot' from Bangladesh. Dr Jha's consistent efforts and the personal and political influence that he was able to wield with the councillors helped him to slowly begin to transform them into CLTS champions. Here trainings and triggering exercises conducted by Kamal Kar and financed by KUSP were of great help, as was the presence of Dr Bakshi, a medical doctor who worked with the health workers.

A serious challenge was posed by the nexus between ward councillors and engineers as well as between engineers and contractors – it was all about money. They were strongly against the ethos of CLTS. Here the Municipality chairman had to evoke the decision-making powers conferred upon him by the 73rd and 74th amendment to the Constitution, in order to implement CLTS.

Challenges were also faced at the community level. The land ownership patterns existing in Kalyani when the refugees and migrants started moving in were varied and haphazard. They included: (1) government waste land belonging to the state or central government; (2) West Bengal state government land such as *Khas* land or industrial reserved land which the state government could specify as a 'notified area'; (3) private land belonging to the railway department, Public Works Department (PWD), State Agricultural University/Kalyani University land or industries; and (4) personal land of the people. The threat of eviction for the slum dwellers therefore did not come from one single source but from multiple sources. Even if a resident had the support of the ward councillor, he/she could have influence only in connection with the ownership of the state-controlled land and could not protect the migrants from being evicted from the central government land or private/PWD/railway land, etc.

⁸ Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is designed to upgrade infrastructure relating to water supply, sanitation including solid waste management, roads and urban transport as well as improving slum settlements, with an emphasis on shelter provision. Basic Services for the Urban Poor (BSUP) is a pro-poor housing and integrated slum development programme. Swachh Bharat Abhiyan (SBA) is the national sanitation programme aimed at increasing access to rural and urban sanitation through provision of toilet facilities.

For instance, the people of Harijan Para⁹ mostly lived on land belonging to the Kalyani University or the Agricultural University land, in which case the Municipality could exert influence as it was state-controlled land.

The migrants in Kalyani slums had informal rights and access to unauthorised land and material supplies through the patronage of their respective ward councillors or local political leaders. The ward councillors nurtured this dependency in order to exercise strict control over their 'protégés'. In some slums there also existed gatekeepers who acted as the link between the ward councillors and the slum dwellers and had control over the people. When the CLTS pilot was initiated and Kamal Kar started triggering in the communities he faced stiff resistance from these quasi-political leaders who thought that he was from the opposition political party and would disturb the power dynamics within the community. Others thought that he was from the Municipality and demanded material and monetary assistance in various forms. All of this disrupted the implementation of the CLTS process. Kamal Kar and Shantanu Jha had to overcome these obstacles through a series of consistent engagements with the political leaders and the community, which took place in various stages.

The first CLTS triggering was tried in Bhutta Bazar slum in Kalyani but it failed, owing to the above-mentioned issues but also to high expectations that there would be a subsidy, as was provided in the neighbouring slum. After this, the triggering was carried out in five slums – Vidyasagar Colony, Harijan Para, ITI Bahir Colony, Bidhan Pally 1 and Bidhan Pally 2. It worked in all of them because dependence on subsidies had not yet become entrenched among the members of these communities. Vidyasagar Colony was the first to become ODF. CLTS worked in Vidyasagar Colony above all because it was a refugee colony and, for the people here, integration into the local society was a matter of survival. They had learnt that the only way they would be able to achieve this was through self-help and a collective spirit, and that sanitation would be a significant pathway towards better health, livelihoods and income. After Vidyasagar Colony, the second slum to become ODF was Harijan Para. Here too, the people saw the immediate benefits in becoming ODF, in terms of both social status and class mobility. Bhutta Bazar also became ODF but this took a much longer time than for the other slums. ODF was eliminated in all five slums within a period of six months. One of the key reasons for this was the emergence of 'Natural Leaders' from the community, who played a key role not only in mobilising their own community members and making their community ODF, but also in helping scaling-up efforts in other neighbouring slums. In Kalyani, CLTS was implemented as part of the Municipality's health programme, which provided a platform for the honorary health workers (HHWs) to get fully involved in the triggering and post-triggering follow-up process in the community. According to the Municipality Chief Health Officer at the time, Dr Kasturi Bakshi, 'The prime motivation for the health department and the HHWs to get involved was to ride on CLTS to promote other health programmes and achieve the objective of better health. They understood that sanitation played a key role in this'.

⁹ *Para* in the Bengali language means colony.

4 Study methodology and methods

The study was conducted in two slums in Kalyani: Vidyasagar Colony and Harijan Para. As stated above, both these slums were part of the initial CLTS pilot project undertaken in 2006. The two slums also served to explore two different categories of migrants residing in Kalyani and to understand the sanitation experiences of women from these slums from the perspective of their different social lives. Vidyasagar Colony, for instance, consists of Hindu refugees from Bangladesh who are Bengali-speaking, whereas the Harijan Para community are largely migrants from other states in India – mainly Jharkhand and Uttar Pradesh – who speak the Hindi language. While the Vidyasagar Colony members fled into West Bengal during and after the partition period,¹⁰ bearing the scars of communal tensions and of wartime, those from Harijan Para migrated between states mainly for livelihood purposes. The contexts in which the two slums were established were therefore very different and this played a role in shaping the consciousness and location of both slums within Kalyani Municipality.

A combination of methods were employed by the research team during the investigation to collect data related to the study objectives. Focus group discussions (FGDs) were held with women separately in the two slums in different periods. In both the slums, two FGDs were held with a large group of women. Each FGD was attended by 40–50 women.



Women participating at an FGD in Vidyasagar Colony.
Photographer: © Preetha Prabhakaran/CLTS Foundation.

Women of different age groups attended the FGDs. These included married women with and without children, older women and adolescent girls. The communities in each of the slum areas are more or less homogeneous in nature; therefore, all the women from one slum community belonged to the same caste. However, there were differences in terms of income levels. While the monthly income in certain households was up to 20,000 rupees, in some others it was as low as 3,000 rupees. It must also be noted that since the women were mobilised through champions in the communities who had led the CLTS movement back in 2006, it was mostly women who were enthusiastic about the process and wanted to share their experiences who were present. All those who were interviewed during the process had also participated in the 2006 CLTS triggering process. Apart from a few young women who had been married into these communities from outside, all the others present said that they had been present during the triggering in 2006. At all the FGDs men were also present and would give their views on the issues discussed.

¹⁰ During the Partition of India, Bengal was divided into the Indian state of West Bengal and the Pakistan province of East Bengal. East Bengal later was named East Pakistan and moved on to become the independent country of Bangladesh in 1971.

The initial FGDs explored women's overall understanding of their sanitation situation and of the process of CLTS initiated in their community years ago. Detailed FGDs were conducted subsequently to further explore some of the themes that had emerged during the initial interaction with the women. Specific lines of enquiry pertaining to their physical health and psychosocial factors were explored in detail using participatory exercises such as mapping and Visualisation in Participatory Programmes (VIPP) cards to understand specific instances and experiences of the women. Further, an FGD was organised with the health workers of Kalyani, many of whom played an important role during the CLTS process. They were deeply involved in the pre-triggering, triggering and post-triggering phases of CLTS implementation and very closely worked with the community in facilitating the collective behaviour change that the community underwent. An FGD was also organised with the Natural Leaders of both the sample slums.

The FGDs were followed by detailed personal interviews (PIs) with a few women selected from the FGD groups. These women were selected on the basis of their contributions and specific experiences articulated during the FGDs. Interviewees were also selected on the basis of the leadership role played by them during the CLTS triggering and post-triggering stages. Three PIs were conducted in each slum. From the PIs, case studies were drawn out and further explored in order to understand the impact of sanitation on the health and social lives of these women.

Additionally, key informant interviews (KIIs) were conducted with key institutional actors in order to understand the role of the Municipality in facilitating the adoption of sanitation and hygiene behaviour by the community. These interviewees included the ex-chairman of Kalyani Municipality and the Chief Health Officer of the Municipality, who played important roles in engaging with the community and taking Kalyani to its ODF success.

4.1 Study sites



Harijan Para. *Photographer:* © Sayantan R. Chowdhury/CLTS Foundation.

4.1.1 Harijan Para

Harijan Para gets its name from the *Harijan* community that resides here. *Harijan* refers to so called 'Untouchables' or '*dalits*' who were traditionally placed outside of the Hindu caste system and designated to undertake jobs that were attributed the lowest status, such as

sweeping, cleaning of gutters and latrines, scavenging and the curing of hides. Confining the *dalits* to this low status and 'despised' jobs has worked as an instrument of social power for the upper-caste Hindus to continue to socially exclude and oppress the *dalits*. Shockingly, the practice continues even today in many parts of India even though 'manual scavenging' or the manual collection and disposal of human waste has been officially prohibited under law in India since 1993. Even though this kind of work is shunned by the community themselves, the deep-seated prejudice against them in society often makes it difficult for them to obtain any other employment (Ramaswamy 2005).

The Basfore community that forms the majority of the families in Harijan Para has been settled in Kalyani for close to four decades, having migrated from other states within India, namely Bihar and Jharkhand. There are 85 households in Harijan Para. The Basfore community has traditionally been engaged in the manual collection and disposal of human waste from other slums within and outside of Kalyani. Today, the younger generation are taking up other occupations such as clerical and office management jobs at the Municipality and in small private companies. This is largely due to the spread of education among the youth and the empowerment of the community through various laws and social movements.

The community members cite 2006 as a landmark year and refer to the implementation of CLTS as one of the most significant events that occurred in their lives as it not only changed the physical environment in which they lived but it also enabled them to gain more social acceptability. They recounted that though they were involved in cleaning other people's toilets, their own *para* was one of the filthiest in the whole of Kalyani, with rampant open defecation taking place. Their social isolation from other social castes in society was further reinforced by this practice. The members of the community recall that people from outside the community would not enter their *para* because of the 'stench' and 'stink' that came from the faeces lying around in the open. Being used to the exclusion and neglect by society at large, the community had not realised that their unsanitary situation was only reinforcing this prejudice. It is also important to note that though a small number of urban development projects had been implemented in some of the other slums in Kalyani, Harijan Para had not been the object of any intervention until then, which highlights how power structures in society and the politics of exclusion shape the implementation of development projects.

With the implementation of CLTS and through its process of self-analysis and self-realisation, the community not only became ODF, but was also instrumental in making the whole of Kalyani ODF. The community realised that with just an ordinary pan, a pit and a water seal that prevents visibility of excreta, foul smell, access to insects/animals and the spread of faecal-oral contamination, low-cost toilets could be constructed at a nominal cost of just 250–300 rupees (under US\$5).¹¹ Some of the community members emerged as Natural Leaders, who took the initiative to guide and support all families in their community to construct toilets and become ODF.



Natural Leaders showing us a toilet built in 2006 at Harijan Para.
Photographer: © Sayantan R. Chowdhury/CLTS Foundation.

¹¹ Source: www.thebetterindia.com/4274/sweeper-actor-kailash-stages-a-sanitation-success-story/ (accessed 21 March 2016).

After they achieved ODF, they worked with the Municipality to trigger neighbouring communities to become ODF. It was a matter of great pride for the community when they won an Inter Slum Cleanliness Competition organised by the Municipality. The other slum-dwellers gradually started paying attention to the Harijan Para members when they endeavoured to trigger them to stop open defecation. Once the momentum began to build up and all the slums started building toilets, the challenge was to ensure sustainability in toilet usage, maintenance and cleanliness of toilets. It was then that they formed the 'Harijan Para Slum Folk theatre group' and developed plays and skits to spread mass awareness in the other slums in Kalyani about the benefits of sanitation.

4.1.2 Vidyasagar Colony



Plot layout at Vidyasagar Colony. *Photographer:* © Sayantan R. Chowdhury/CLTS Foundation.

People in Vidyasagar Colony are mostly Hindu refugees and forced migrants from Bangladesh, erstwhile East Pakistan. Many do not have legal entitlement to their land. The locals are enterprising young small business owners and the women in this community were very vocal during the interactions. For livelihood activities, some women are involved in selling *puchkas* or puffed rice in local trains or on the roadside while the others work as domestic maids or as staff members in the nearby university or offices. Most of the residents have been living here for more than four decades. Many of them are now legal residents or are in the process of becoming one. Without a legal status of citizenship, investing in creating a *pukka* house or a toilet becomes a big risk owing to the fear of eviction. However, despite the lack of acceptance as legal citizens, each person interviewed agreed that they had found a better life for themselves in this colony.

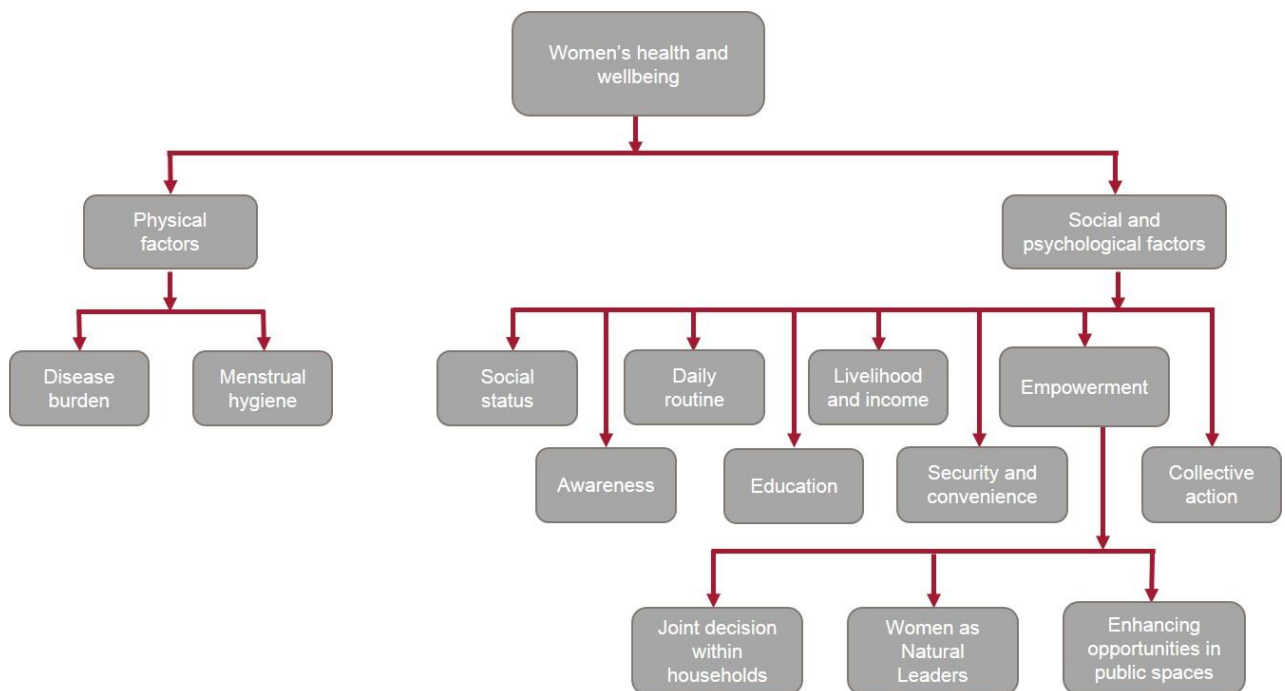
While some families in the slum already had toilets at the time of CLTS implementation, they had no understanding about hygiene issues or how sanitation was related to their health status. The toilets being used were dilapidated in most houses and the practice in many instances could be termed as fixed-point open defecation. After the triggering exercise, families with non-functional toilets started building new ones and the others without toilets immediately put an end to open defecation and started building their own. Vidyasagar Colony became ODF within six months and this achievement was facilitated by the emergence of

very active Natural Leaders, both men and women, who rigorously followed up after the triggering phase, to motivate people to act upon what they had experienced and analysed during the triggering process. The community mentioned how access to sanitation had been a priority for them as it gave them an opportunity to improve their standard of living. Despite not having a permanent legal entitlement to their land in the colony, it was found that many families had prioritised expenditures on sanitation and had invested large amounts of money in order to build *pukka* toilets. The benefits of collective action that gains momentum as a result of CLTS were evident in this community, as improvement in sanitation behaviours were followed by an '*andolan*' or people's movement to demand basic services such as roads, water supply and electricity from the Municipality.

5 Key findings of the study

5.1 Physical, social and psychological health and wellbeing

Figure 5.1 Diagrammatic representation of factors contributing to physical, social and psychological health and wellbeing of women in Kalyani



Source: Authors' own.

5.1.1 Disease burden

Women from both Harijan Para and Vidyasagar Colony unanimously declared that the illnesses suffered by them and by their family members had drastically reduced since their communities had become ODF. This is especially in the case of diarrhoea. They said, 'These days we hardly hear of any cases of diarrhoea in our community.' For the people in Harijan Para especially, the mention of diarrhoea is a painful reminder of the tragic death of a five-year-old child in their community after she suffered repeated attacks of loose motions through the night. The community members recalled the incident vividly when they had found the child's mother crying the following morning as her daughter lay unconscious and she did not have the money to take her to the hospital. 'We all pitched in some money to hire an ambulance to take the child to the hospital but she died as she got there.' It was only much later after the community members were taken through the CLTS exercise that they realised what had caused the little girl's death.

This is a learning that we will never forget. Now we all have our own toilet. No one defecates in the open any more and we keep ourselves clean and free from faecal contamination and infections. We can see the impact of this in our daily lives now.



Participatory exercise with women in Harijan Para. *Photographer:* © Preetha Prabhakaran/CLTS Foundation.

A lady from Vidyasagar Colony (married, mid-30s) narrated her harrowing experience with diarrhoea:

Once my elder son was admitted in the hospital due to diarrhoea and I had to stay with him at the hospital for three days. After I brought him home, we continued with the practice of open defecation. At that time no one, not even the doctors, had told us that diarrhoea was being caused due to contamination from open defecation. They just gave us the medicines and treated us. After a few days, my younger son fell ill with diarrhoea. And we had to run with him to the doctor again. I wish we had known why toilets are so important before the CLTS exercise. Now we have a toilet and my children do not suffer from diarrhoea.



The Self-Help Group in Vidyasagar Colony in conversation with the study team. *Photographer:* © Preetha Prabhakaran/CLTS Foundation.

Older and younger women from both the communities reported that since the time they started using toilet facilities at home, their bodily functions have become more regular. Earlier they would suffer from ulcers, gas, stones and other health issues due to holding back their urge to urinate and defecate, as their trips to the outside fields to defecate had to be carefully organised. Not only were they wary of the timings but they also had to have the company of either their husbands or other women as they did not want to go alone. The women said that they would not defecate for days in a row, sometimes because of their busy schedule and other times because they wanted to minimise their trips to the fields. Many said that their heads would spin due to holding back for days but this had become a way of life. They also suffered from problems such as piles.

Younger women, especially those who were newly married, said that they would not eat too much at night for fear of having to go outside to defecate. They would often remain hungry but did not want to be embarrassed in front of their family members if they felt the urge to defecate in the night and had to 'inconvenience' their husbands to accompany them outside. Irregular eating habits also affected women's health. These accounts reflect the power equations within family settings where younger women, especially those who marry into a family, are faced with the stress of negotiating cultural expectations of having limited mobility in public spaces with the shame of going outside to defecate. With the presence of toilets in their homes and having internalised the habit of using the toilets regularly, all this has stopped. 'We are much healthier now', they say.

5.1.2 Menstrual hygiene

During the FGD, women of menstruating age, adolescents as well as married women, spoke of the difficulties they experienced in managing their menstrual hygiene. 'These were the worst days for us every month.' The shame that women perceived of having others, especially men, seeing them openly defecating was stressful enough for them. On these days, the taboo associated with menstruation further alienated women from the naturalness of their bodily functions and deepened their sense of insecurity. A telling incident about the taboos associated with menstruation took place during this study. When asked about issues related to menstruation, a woman, mother of three adolescent girls, looked away, embarrassed, and sent her daughters inside their home before she answered our question.

During the FGD, many of them said that before they got the toilets they would dig a hole in the fields to wash themselves during their periods, which they would then cover up so that the residual material would not be visible to others. They would keep a soap and a bucket of water near the hole and clean their cloth and bring it back home to dry in a hidden area. Since they could not go to the fields during daytime, they had to wait until late in the night. They would not change their cloth all day or would wear a thick cloth that would last them all day. This would be very uncomfortable and even led to various infections. Toilets have come as a boon for the women. Now, with toilets in their homes, women said that they could change as often as required. They have privacy and cleanliness. Some reported that the infections had stopped as a result of better hygiene and cleanliness. Better awareness about health and hygiene matters as well as better market availability and affordability led the women, especially adolescent girls, to adopt the use of sanitary napkins. When asked how they got to know about sanitary napkins, the women said that they would get all this information from the television. While the explosion of media communication into villages and peri-urban areas has contributed to women's increased awareness, the women also stated that it was after the CLTS process that they started becoming more interested in knowing how they could improve their own health.

5.1.3 Social status

An older woman (age mid-50s) recalled:

Earlier there used to be shit lying around everywhere. There were times when we would be eating food sitting next to shit. There were times when I would vomit over my food at the sight of shit but slowly got used to it.

People would cover their noses as they walked past our para. The place used to be so smelly that people would look at us in disgust. What self-respect does one have left when one sees this? Some people also used to scold us because of the bad odour. We used to feel so bad.

Now with a toilet in every household, the women say that they can live with dignity and self-respect. One woman (age mid-30s) commented, 'The most embarrassing part was when we would have guests over at our place. We would give them good food to eat but when they asked for a toilet we had to point them to an open space.' The women said:

Everything is different now. Our lives have changed. We feel clean and live with dignity and self-respect. Our environment is cleaner, our surroundings are hygienic and we enjoy good health now. We can never go back to how we used to live earlier.

A young married woman said:

I already had a toilet in my house, so, when my husband came to see me for the first time, we found out that his family didn't have a toilet. So my father told my husband that he could marry me only after he had built a toilet.

Other women claimed that having a toilet was one of the primary considerations in any marriage discussions these days. 'We would never marry off our daughter to a house that does not have a toilet. She is used to one now.'

5.1.4 Awareness

Women of all ages claimed that they had learnt from experience how better sanitation can improve their health. However, it was the engagement process through the participatory exercises that made them understand the connection between unhygienic practices and the illnesses in their bodies.

Recounting her self-realisation process, an older woman (mid-40s) from Vidyasagar Colony stated:

Previously, we used to defecate outside and all the flies and mosquitoes used to sit on the food and when we ate that food we used to fall ill. No matter how much we covered it with soil, bad odour would arise and when we went to wash our hands before eating, we would come back to find flies sitting on the food, but we would still have that food.

5.1.5 Daily routine

Time-saving



Participatory exercises with women at Vidyasagar Colony. *Photographer:* © Preetha Prabhakaran/CLTS Foundation.

Since the women have not had to go out to the fields to defecate, they have gained a lot more time in their daily lives.

Previously, if anyone wanted to defecate they would spend about half an hour every time to do so. It would be very inconvenient for women as they would have to get away from their immediate task at hand. For example, they would have to switch off the gas stove [wood-fired stove] if they were cooking and run off into the fields, and when they came back they would spend much time in lighting up the stove again. (Married woman in her 20s)

Women claimed that having toilets in their own homes had made their lives easier and they were now able to organise themselves better. This helps them accomplish many more tasks during the course of the day. Since women had the responsibility to ensure that their children were taken care of and sent to school on time, now even their children's routine had become organised with the presence of toilets.

Getting to work/school on time

Working women in Vidyasagar Colony reported that previously they would get to work late in the mornings because of the time it took to walk to the fields and defecate. Many of them have jobs that are largely informal in nature and not protected by any labour laws. Therefore, the risk of women losing their jobs if they turned up late or could not attend work due to illness was high. One young single woman (in her 30s) said that at her workplace if she got there late, they would cut her pay. She said that now having a toilet at home helped them manage their time better and this had led to better work experiences. Women also said that earlier even the children would miss school because they were either ill or got late because of the morning defecation routine, which took up so much time. Children are now healthier and more aware about hygiene practices.

Box 5.1 ‘Building a toilet was one of the best decisions of my life’

Monica Mondol is a resident of Vidyasagar Colony who migrated from Bangladesh at the tender age of 13. A single mother to an 11-year-old boy, she didn't have a stable job, and she used to suffer from ill health caused by periodic bouts of diarrhoea which added to her financial burdens. She was the breadwinner of her family, which included her parents as well, so the drain on her health and savings used to cause her a great amount of stress. She would often miss her train to work because of the time taken to go outside for defecation. The decision to construct a toilet was, according to her, a life-changing one. The benefits have been numerous, not only in terms of her health and that of her son and family, but also in terms of monetary savings, which previously got used up in preventable medical expenditure. When asked if she was worried about the investment she had made in building a toilet, given that she didn't have legal ownership of her land, she said that she felt the urgent need for a toilet preceded all other considerations. She now intends to upgrade her toilet once she saves enough money. She said that hygiene was more important for day-to-day living than the land title.

Operation and maintenance of toilets

The sanitation literature suggests that it is largely women who have the responsibility for the cleaning of toilets, whereas the men carry out the work of construction and maintenance of pit latrines (digging, repairing and emptying) (Dankelman 2009). It has also often been reported that the responsibility for collecting water for sanitation rests solely with women and girl children in the homes (*ibid.*). This pattern was found in the Kalyani slums as well. When women were asked if this increased their household chores, they replied in the negative and said that the collective benefits of improved sanitation and better health were enjoyed by everyone in the household. Many said that having a toilet at home provided them with safety and security and cleaning toilets was a small price to pay for this.

While sanitation is a public good with benefits accruing to everyone in the household, feminist literature has also highlighted that unequal gender relations and the sexual division of labour within the household place care responsibilities entirely on women (Boserup 1970; Tinker 1990; Beneria 1979). Many of the women also worked outside of their homes which means that they disproportionately shouldered most of the work, but social or gender norms were internalised by women and, as Amartya Sen (1989) explains, women are often 'altruistic' in nature, neglecting their individual wellbeing, and often they 'cooperate' for the sake of overall family wellbeing and convenience. Nevertheless, leaving aside the power dynamics, women said that they would rather clean their toilets than have poor sanitation affect their health. Some families in Vidyasagar Colony had invested more money in their toilets than in their houses. When asked what motivated them to do so, they said that it was more important that the toilet remained in good condition than the room in which they slept. 'Once our health is affected, we will not be able to do anything. Therefore, we didn't mind putting in all our money into building a good toilet.'

Interestingly, in Harijan Para the women reported that men equally helped in household work and some women (mostly the older ones) said that men also shared the responsibility of cleaning the toilets. Many of the younger married women, though, stated that it was they who cleaned the toilets. Therefore, it was clear that this was an individual negotiation between the couple within the household and not accepted as a social norm. It is also important to note that in Harijan Para, cleaning was a profession for the men; therefore, it was easier for them to assume these roles than for men from other slums. At the same time, it is also interesting to note the 'public-private' dichotomy in division of labour. Some men were ready to do the cleaning outside their homes (they saw it as paid work) but not inside their homes (which was termed as unpaid women's work).



An upgraded 'pukka' toilet in Vidyasagar Colony. *Photographer:* © Sayantan R. Chowdhury/CLTS Foundation.

5.1.6 Education

Women from both the communities said that the children's attendance in schools had gone up since they stopped open defecation and adopted better hygiene practices. A mother said:

The children had to go far from the house to defecate, and on some days they would get delayed and couldn't go to school. If they went to school, the teachers wouldn't let them enter, they would scold them. So the children would prefer to miss school. After we made our own toilet, the children go to school every day.

Another woman claimed, 'They also do not fall ill as often as they used to earlier.' Many women said that the children are learning better at school. The children especially had imbibed the hygiene practices completely. They are very aware about personal cleanliness and make it a point to wash their hands after toilet use. 'The children won't allow us to keep our surroundings dirty. They roll up their noses in disgust at any bad smell. They are very aware now about hygiene matters since they learn about this at school.'

5.1.7 Livelihoods and income

One of the key outcomes of stopping open defecation and attaining better health has been greater disposable income for the families, leading to better livelihoods and work opportunities.

Earlier we would have to make frequent visits to the hospital, sometimes even 5–6 times a month. We would spend around 400–500 rupees every month in hospital visits and for buying medicines. A large family could lose up to 3,000 rupees on medical bills due to diarrhoea, etc. All that money gets saved now.

Another woman added:

If we go to the hospitals, the doctors prescribe medicines which we have to buy from outside even if it is a public hospital. Then there is also the cost of getting to the hospital and back. We have to sometimes take a taxi when our child has diarrhoea.

Women said that the money saved is diverted into other household expenses. Some said that they spend it on their children's education or on buying more food. One woman said, 'The money that we save on medical expenses is now invested as capital in our businesses.'

5.1.8 Security and convenience

Women from both Vidyasagar Colony and Harijan Para stated that one of the biggest gains of building a toilet in their homes was the psychological relief and peace of mind that it offered them. Women complained that a major stress factor would be the shame of people watching them walk to the fields to defecate during the day and therefore they would either go out early in the mornings before dawn or wait until after dark. This also meant that women often had to hold back their urge to urinate for hours all day. But even going out at night presented great danger which filled the women with all kinds of fears. One would be the fear of snakes in the field. The second would be the fear of being attacked by goons or alcoholics who roamed around freely in the night. During the day, there was the fear of passers-by prying on them while they defecated. But now with a toilet in their homes, their basic needs are being met in a convenient and timely manner.

Recounting her earlier experiences, one of the younger women said, 'There used to be a fear when we defecated that if any one comes and attacks us then what will happen?' Another woman chipped in with:

We were stressed all the time and so much that we would not be able to defecate freely. There were times when we would have to stand up halfway at the sight of any passers-by either due to fear or embarrassment and sit down again after they passed by.

Another woman added, 'Men would see us when we would defecate. Some of them would stand and watch. Those times we had to get up and run away. All this used to be so humiliating and we felt so disrespected.'

Convenience was another key factor that women highlighted as a positive outcome of being ODF. Women said that they felt extremely comfortable now that toilets had been built in each household. Previously when the children wanted to defecate at any time during the day or evening, it would not be possible for mothers to immediately take them to the fields. So they would be made to defecate somewhere near the home, which would be very unpleasant. 'These days young mothers can conveniently manage such situations,' said an older woman. 'Having lived in earlier conditions we feel much more comfortable now that we live in homes with toilets.'

5.1.9 Collective action

The leadership role played by women in making the Kalyani slums ODF developed into women taking on an active role in all matters concerning the community. As one said, 'If there is any improvement to be done in the community, we are at the forefront of all the action.'

The women in Vidyasagar Colony spoke animatedly about the various developments that had taken place since the Colony had become ODF. The process of eradication of open defecation by the community members resulted in an awakening of consciousness and collective spirit among the people in the community to improve their lives and living conditions. This soon led to collective action by the community to acquire basic utilities such as roads, electricity and water connections for every household from the Municipality.

The women explained:

Previously, we had to work and eat under the lamp light. We had no roads. We had to go and collect water from a long distance. After we built our own toilets we understood that there was a lot that we could do together as a group. We also realised that in order to live a better life we also needed other basic services. We all got together and took out a movement. We submitted an application to the Municipality, made regular visits and met with the Chairman often. We approached the ward office and demanded a road. After that we got electrical connections for our houses and after that even water. All this took a while but we stuck together. This also gave us tremendous confidence as a group that we could make things happen for us by working with the Municipality. The Chairman was very helpful.

A woman said, 'We have our differences but when it comes to the development of the community there is a lot of unity between us.' Access to basic services has enhanced the lives of people in the community and expanded the scope and ease of their activities.



The study team with the change-makers of Vidyasagar Colony. *Photographer: © Sayantan R. Chowdhury/CLTS Foundation.*

5.2 Empowerment

We now turn to look at whether the CLTS process empowered women in both the slums. CLTS as a process of change is rooted in the ability of everybody in the community – men, women and children – to initiate collective action towards becoming ODF. While it must be stated that CLTS as a methodology does not focus on specific strategies for empowering women, across countries and across different social and cultural contexts, it is often the women who take the active lead and become the catalysts for change. As discussed earlier, one of the reasons could be that it is the women who disproportionately experience the gendered burdens of ill health and different forms of violence and inequality that arise from poor sanitation. Another reason for women's active role in Kalyani could be that, since the health workers were women, they were able to mobilise women more easily to create demand and follow through on becoming ODF.

Though used very widely in development literature, the conceptualisation of the term 'women's empowerment' is very varied and highly contested among different schools of feminist thought, in its linkages between individual agency, collective action and structural

transformation (Sardenberg 2009). Kabeer (1999) defines empowerment as a 'process of change' by which those who have been denied power acquire power, which is the ability to make strategic life choices. According to her, access to and control over resources determine the conditions under which choices are made by women; agency is the ability to use access to resources and it forms the process through which women make choices; achievements are the outcomes that one derives from making choices. Batliwala (1994) describes empowerment as a process of building critical consciousness to recognise and challenge patriarchal power relations as the source of women's oppression and lack of control over resources. In other words, her focus is on collectivisation as a means to organise and act for change.

All of the above can be summarised in Cecilia Sardenberg's (2009) approach to conceptualising empowerment, which she describes as 'liberal vs liberating' empowerment. Thus while liberal empowerment focuses on engaging women to make economic, social and political changes in their lives which would help them gain more power in their daily lives, liberating empowerment pertains to power accruing to women through collectivisation and changing the status quo, i.e. the social and gender norms and structural inequalities that exist in society (*ibid.*).



An interaction with women in Vidyasagar Colony. *Photographer.* © Sayantan R. Chowdhury/CLTS Foundation.

The process of engaging women through the CLTS process in Kalyani to achieve the sanitation goals can be seen as a process of empowerment that does not fall neatly and completely into any of the above categories; however, it imbibes the spirit of different dimensions contained in all of the above definitions. The process that took place in Kalyani can be seen as one that involved change from one stage to another, i.e. women progressed from not having power to acquiring power over time. This power was associated with gaining access to resources, namely toilets, and making decisions and choices related to this. 'Agency' stood out as an important element, placing women as significant actors in this change process. Though engaging women did involve creating a separate space and time for women to come together and organise for collective action, the building of consciousness was directly linked to achievement of sanitation and health objectives. However, it would be wrong to say that this led to critical conscience-building regarding the need to challenge the status quo – for e.g. social and gender norms – or the need for structural transformations of patriarchal institutions to change existing power relations in society. Research on gender

analysis of demand, though limited, highlights that though women generate the demand for toilets, they have very little control over spending decisions within the household (Ahmed 2010; Muller and Mobarak 2013, in Khanna and Das 2015). We now look at specific dimensions of empowerment experienced by women.

5.2.1 Joint decision-making within households

Women stated that they played a lead role in making Kalyani an ODF town. Women in Harijan Para said that after the triggering exercise, they would meet at least twice a week with the health officer and health workers to discuss the process by which they could get toilets. While some women stated that their husbands were as willing as they themselves were to initiate action, some others said that they had to put pressure on other household members to act. The women used emotional triggers such as self-respect, dignity and the health of their children and families to persuade their husbands to take decisive action.

Women in Harijan Para said that this community-led action empowered them in many ways beyond sanitation and health outcomes. This was the first time that women were included in any decision-making process in their own homes or in the community. At one time it had been the men who took the decisions in all matters. But when they decided to build a toilet, after the CLTS triggering, they took this decision in unison. Women played an equal role in deciding the location of the toilets, the design, the size, colour, etc. Men and women took equal ownership of the process. Some women even reported that they went to the market with their husbands to buy the sanitation hardware. Still, it must be stated that in some situations men continued to play the lead role. In Harijan Para the village committee that was formed consists mainly of men. Women were involved in the advocacy and campaigning but it was the men who held the positions of authority and liaised with the Municipality on various matters relating to building toilets. On the other hand, in Vidyasagar Colony, the women seemed to take a more active lead in the process. This could also be due to the fact that there was an already existing self-help group in the community and the health workers could build on this group and involve them in the campaigning activities.

Even in Harijan Para, women feel that they have more of a say in significant matters:

Earlier, our husbands used to come home drunk, and never took any interest in family and household matters, but now, most of the husbands do not drink, and they take care of their family. Many of them have even started helping their wives in cooking and taking care of the children.

This collective decision-making process led to more confidence among the women as they felt they had finally found their voice. The women stated that the CLTS triggering process had been a big eye-opener for the men in the community, with regard to basic needs such as sanitation and health. When they adopted better sanitation practices and their lives started improving, this motivated the men to give up drinking.

5.2.2 Emergence of women as Natural Leaders

One of the most empowering aspects for the women from both the slums has been the leadership role played by them in the process of becoming ODF. The Municipality Chief Health Officer, Dr Kasturi Bakshi, played a key role in engaging with women in the community and building their capacity towards attaining ODF.

Many women from both the slums emerged as Natural Leaders to lead the CLTS process. As the community focal persons, they worked closely with the health department to undertake monitoring and follow-up activities with the rest of the community. They made weekly home visits and households would seek advice from them for any action related to vaccinations or sanitation. This greatly increased women's knowledge of health issues and awareness about different health programmes being implemented by the government.

Women's self-confidence increased as also did their ability to take decisions. This process also offered the women an opportunity to interact with the local government authorities and facilitate dialogues with them and the community. All this contributed to women's feeling of belongingness and ownership within the community.

However, the journey was not very smooth for women when they began to take action. Geeta Biswas (case study below) tells of how she would receive insults when she went door-to-door trying to convince people. Many women refused to cooperate because the men in their household would not allow them to get involved. The men refused to listen because they did not take a woman's words seriously. But gradually things began to change. This required consistent and persistent efforts. Women were mobilised slowly but once they became involved there was no stopping them. Women also shared their difficulties when it came to choosing the right technologies. 'For this, we had to depend on the men or the engineers at the Municipality.' But the women feel confident of their immense contribution and critical role in achieving ODF. 'We wouldn't have achieved what we did had it not been for us women.'

Box 5.2 'ODF is my reward': contributions of a Natural Leader

'The CLTS triggering at Vidyasagar Colony inspired locals to take control of their present situation, which was taken up fiercely by women,' said Geeta Biswas, a prominent Natural Leader in Kalyani. Already involved as the leader of a self-help group, '*Swarnajayanti*' in community activities, it was natural for her to be drawn towards championing the cause of sanitation. She led from the front in three different colonies in Ward No. 1 of the town. She felt that empowering each woman to join with others and take charge was important.

The women and men started building toilets on their own, with technical advice from the Municipality town planning officer as and when required. Geeta went door-to-door guiding other women like her, in a process that she feels was extremely drawn-out because of the resistance she faced not only from men but also from other women. However, she found that once the urgency was understood, women understood the importance of eradicating diseases from their town and they set about creating low-cost efficient toilets in their houses. When toilets had been introduced throughout the area she was offered a cash reward for all her efforts, but she refused to take it, stating that her reward lay in watching the transformation of the place from an extremely dirty one to the clean place that the community now enjoyed. 'I feel extremely proud of the proactive role that women have played in making this Colony ODF. This is the biggest reward and my greatest achievement so far.'

5.2.3 Enhancing opportunities in public space

A woman in Harijan Para (married, mid-30s) said that previously they were not allowed to go out of their houses on their own; they were accompanied by their husbands at all times. One woman said, 'We had to stay inside our homes all day. Even if I went from my house to my neighbour's house, people would start talking.' With CLTS and the active role that women played in the process, women went out of their houses without their menfolk. The triggering experience had initiated the idea of 'creation of spaces' for discussion. Women used this opportunity to get together during the day when their husbands were at work. They started discussing various issues and were more aware of what was happening in the outside world.

Women in Harijan Para said that many of them had been married at a very young age and had had children by the time they were 15. They decided that they did not want the same fate for their daughters. They were determined that their girls would get a better education and be allowed to pursue work opportunities. Some women said that they themselves had made the decision to go out and work, because they wanted greater mobility and to interact with the outside world. Another reason was to become financially independent and contribute to the family's income. The process of building their toilets had taught them that being able to make this financial contribution would increase their bargaining power within the household. 'All this started after 2006, after the mapping exercise.'

Box 5.3 ‘Improving our sanitation has given us an identity’

Kajal Basfore and Seema Basfore of Harijan Para are two young women aged 20, who have been changing lives in Kalyani slums by spreading the message of good sanitation and hygiene through street plays and dramas. ‘Everything changed dramatically for us after 2006. Earlier our friends would not even come to our *para*, because it used to be so filthy. Now we feel great pride when these same friends say that our *para* is so clean.’ Kajal and Seema stated that their lives changed when they got involved in the post-triggering follow-up.



Photographer: © Preetha Prabhakaran/CLTS Foundation.

Our mama (uncle) asked us to take part in a drama to spread the message of good hygiene. We were petrified. Because earlier we had never gone out of our houses or spoken in public. Acting in a play was unimaginable.

The girls initially faced stiff resistance from their parents, who would not allow them to travel outside the *para*, but the Natural Leaders in the community convinced them. ‘Now when people recognise us on the streets our parents feel very proud.’

A lot has changed in the community over the last few years. The street play focused on many social issues including the disastrous consequences of alcoholism. Men slowly started giving up drinking. Now parents allow their girl children to study as much as they want. ‘The girl now decides when she wants to marry. Earlier they would be married off by 14–15 years, but today girls in our *para* are studying law, education, etc.’

The biggest lesson that the girls say they have learnt is:

It doesn't matter if you are girl or a boy, one can do whatever they want to do, if they put their mind to it. We realised this when we changed our sanitation situation. From the outside we look like anyone else. Nobody discriminates against us anymore because of our caste or because we are girls. We finally understood what our real identity is.

This section has highlighted the several profound changes that have taken place around empowering women and their lives. Many women reported having greater decision-making power. They explained how the gender dynamics had changed in their favour; they said they could now voice their opinion freely, and their husbands were now consulting them before making decisions like investing in renovation or construction work in their homes. However, during the FGD with the health workers, it was found that there were cases where women had no control over the decision whether or not to use birth control. Even when health workers tried to make contraceptives available to the women, some would refuse them because they knew their husbands would not agree to their use. This shows that empowerment is not a straightforward process and gaining the power to make decisions in one particular area does not necessarily mean becoming empowered in more general terms. Individual family dynamics are often influenced by the overriding social culture which determines dynamics between men and women generally.

However, it must be said that while both men and women mentioned that many positive changes had occurred in their lives in terms of their physical health, how far this has altered the power equations or gendered norms within households cannot be ascertained through this study. The CLTS intervention did not focus on improving or challenging gender inequality apart from the issue of sanitation, and therefore there was no specific activity designed to address unequal gender norms governing other aspects of women's lives. The positive

changes noted by women can clearly be linked to the processes around CLTS but could also be attributed to other processes of social change such as urbanisation, working environments and the role of the media. If anything, the study highlights the fact that the CLTS approach could usefully focus more squarely on using its success to challenge the dominant status quo and to tackle multiple forms of gender and social inequalities. This could be a focus for action in the post-ODF phases of the intervention. Finally, it is important to look at the context within which the approach can be sustained over time. This is why the external environment is crucial, and it is discussed in the next section.

5.3 External environment

5.3.1 Role of the Municipality/governance

Experience of CLTS implementation in various countries has shown that its success is largely reliant on political buy-in and commitment from institutional actors in decision-making positions (Milward *et al.* 2014). As discussed, the Kalyani Municipality authorities played a very strong role in facilitating the process of achieving access to sanitation for the people in Kalyani slums. Former chairman of Kalyani Municipality, Dr Shantanu Jha, and Dr Bakshi, a medical doctor working in the health department, were key players in this regard. According to Dr Jha, CLTS emerged as a viable option in the Kalyani context because most of the slum dwellers were living on 'unauthorised property' and it was difficult for the Municipality to provide basic services since the land was legally owned by the university or railway authorities. However, the fact that stopping open defecation was an objective meant that under the 73rd and 74th amendment to the Constitution he was able to take advantage of the powers allotted to Municipalities to take independent decisions, in order to initiate community-led efforts for sanitation followed by efforts to upgrade basic services.

While all credit goes to the slum dwellers for stopping open defecation, a supportive Municipality is needed to allow existing resources and mechanisms to be utilised to the maximum capacity to facilitate this community process, followed by mobilising support from political leaders and ward councillors. CLTS was brought into the ambit of the health department rather than the sanitation department, which is usually firmly fixed on a 'construction' approach (see Mehta 2013 for evidence that CLTS usually works better under a health rather than a rural development department).

The strong role played by women is acknowledged by the Municipality, not least because it was they who had suffered the gendered consequences of the lack of access to sanitation and could immediately see the benefits of the process. Recalling the past, Dr Jha said, 'There was a time when the community women were all around in the Municipality building meeting the ward councillors and getting things done.'

The communities' achievements in sanitation led to the Municipality supporting the communities to gain access to other basic services. The former chairman, Dr Jha, announced that ODF slums would be given priority for forthcoming development works. In Harijan Para, where the community is settled on land owned by the State Agricultural University, the Municipality helped in getting a water pipeline installed near the boundary wall of the University to facilitate a water connection for the community; legally, the pipeline could not be extended inside the *para*. The Municipality also initiated a process of dialogue with the University to transfer land to the Municipality with a view to allotting legal land titles to the families living on that land. This process has been completed to a large extent, although many families still lack legal titles to their land.

Solar street lamps were installed in Vidyasagar Colony, which meant that for the first time, electric street lights lit up the community's dark streets at night. Gradually, with some assistance from the Municipality as well individual investments made by the families themselves, water hand pumps were installed in many households in the colony. All these additional services accrued from the collective benefits of becoming ODF, in terms of both the collective spirit among the community and the Municipality's willingness to support the colonies to improve their lives in various ways beyond the initial goal of ODF.

5.3.2 Access to health services and multisectoral linkages

The inclusion of CLTS within the CLHI initiative of the KUSP project gave the Municipality better access to the community and enabled it to improve its health service delivery capacities. The HHWs played a key role in CLTS facilitation and follow-up and this process enabled them to interact on a regular basis with the community members. The momentum built through the process made it easier for the HHWs to mobilise people for change in other aspects of health-seeking behaviour such as demand for iron tablets, timely immunisations, regular check-ups, etc. The interview with the former Chief Health Officer of Kalyani Municipality, Dr Bakshi, revealed that a high degree of ownership developed not only within the community, but even among the HHWs. Many of the HHWs lived in the community itself and worked for very modest salaries; the CLTS process had fostered in them a high degree of motivation and commitment. The understanding that sanitation was intricately linked to health resulted in the community being more responsive to the initiatives of the Municipality health department and there was greater acceptance and demand from the community for health services such as polio vaccinations, tuberculosis check-ups, institutional delivery facilities, family health awareness campaigns, etc.

The community's success in improving their sanitation status on their own and the resulting national recognition that the Municipality received, paved the way for the Municipality to be more responsive and to engage more meaningfully with the slum dwellers. During the CLTS process, right from the triggering stage to the post-triggering follow-up stages, the Municipality played only a facilitative role. As discussed earlier, after the slums became ODF the Municipality began to play a more active role in facilitating sanitation improvements in the community by facilitating the process of land transfer to the slum dwellers in Harijan Para and allotting land to each family, thereby ensuring the legality of land to the slum dwellers. Security of land tenure has motivated the community to make further investments in new sanitation facilities and in upgrading their existing facilities.

The collective sanitation and hygiene behaviour change process that took place in Kalyani slums and has been sustained, with a positive impact on the health status of women, is a result of multi-pronged efforts and multi-stakeholder engagement. The efforts of the communities to stop open defecation and gain access to sanitation facilities were supported and further enhanced by the contributions of various institutions led by the municipal authorities. These included the departments of health, engineering, land revenue, electricity, water supply, education, etc. This multisectoral approach has been a cornerstone in Kalyani's sanitation/health success. Additionally, many government sanitation programmes that aim at providing sanitation infrastructure, such as JNNURM, Swachh Bharat Mission (SBM) and Water & Sanitation for the Urban Poor (WSUP), are finding greater acceptance and usage within the slum communities.

6 Challenges

Despite the clear successes of the Kalyani story, some technical, institutional and socio-political challenges remain. Most slums in Kalyani are not connected to the underground sewerage network, leaving unresolved problems concerning solid and liquid waste disposal and environmental pollution. Pit latrines get filled up and need to be emptied. Currently, manual scavenging, which is a violation of human rights and human dignity as well as being a legal offence in India, continues to be practised in Kalyani owing to the lack of a better alternative that people will buy into. The practice is extremely hazardous to the health of the people engaged in it and can mar the positive health outcomes achieved in the community. Although those engaged in the manual collection and disposal of waste see this as their daily livelihood, the younger generation are moving away from it. The Municipality has made efforts to integrate the pit emptiers into more formalised jobs at the Municipality offices while providing for technological solutions such as suction tankers for emptying the pits. However, informally the practice of manual emptying still exists.

The slum communities mostly continue to use unlined pit latrines, which could be potential sources of contamination, particularly for more than 300 tube wells in Kalyani which are shallow. Groundwater contamination can cause serious health hazards as can the overflow from septic tanks in the absence of a proper drainage system.

There have also been some institutional challenges and questions concerning post-ODF follow-up. In Kalyani, for example, it was reported by the women that the health workers did not engage as much with the community now as they had done during the CLTS phase. As with CLTS interventions all over the world, post-ODF follow-up is important to ensure sustainability of the intervention and prevention of further problems (see Mehta and Movik 2011). Some of the women reported that children's faeces could sometimes be found in the open areas. This is very dangerous from the point of view of contamination and defeats the whole purpose of ODF. It is important for the health workers to continue to engage and address these slippages promptly. This also highlights the issue of the importance of institutional leadership in ensuring the sustainability of initiatives.

Since 2006, political power in West Bengal and the Municipalities has changed hands. In the beginning, the party now in power displayed strong resistance to acknowledging the successes achieved by the former political party. This led to a political fight between the two parties which initially constituted a huge obstacle to sustaining the efforts of the community. Both the Chairman and the health officer who were instrumental in leading the CLTS process are no longer working with the Municipality. The new leadership does not have the same level of understanding or capacity to engage with the community on these matters. As the literature on CLTS indicates, the full potential of CLTS can only be realised when strong and committed leadership is willing to champion the cause. Because Kalyani has become so famous as an example of success in improving urban sanitation the current administration has also embraced the intervention and is making efforts to support the community to sustain and enhance their facilities. However, problems still remain in reaching out to all the slums in Kalyani. The land ownership issue also remains unresolved, restricting the work of the Municipality in extending or improving the water and sanitation infrastructure for the people. In the slums where the land legality issue has been resolved, people have started participating in improving their infrastructure by putting in their own investment.

Finally, the scaling-up of this model has not been successful in the urban context. Unfortunately, the model has not spread throughout the 125 Municipalities in West Bengal or even the 37 within KMA itself. The main reason for this has been the lack of political will to improve sanitation from the standpoint of tackling behaviour change to create ODF environments, and opting instead for a strategy of subsidising or incentivising the building of toilets. This mindset has also been fuelled by problems of institutional corruption, with a strong nexus existing between contractors/engineers and the local councillors or middlemen.

7 Conclusions

This report focused on understanding women's experiences and perceptions of the impacts that improved sanitation has had on their health and overall wellbeing. It also examined the process through which ODF status was attained in two different slum colonies, the resulting health impacts and the collective action that took place around both sanitation and other development benefits.

Women's health was framed in a broader context that not only encompasses physical health status in terms of absence or presence of diseases as a result of improved sanitation, but also includes women's social and psychological wellbeing resulting from reduced risks and a wide range of benefits accruing from better sanitation and hygiene practices and facilities. The study also focused on exploring the extent to which the CLTS process can be said to have empowered women. As experiences of good health and wellbeing are affected by factors in the external environment, namely the role of the local government, women's access to health services and the involvement of multiple sectors, these issues were also considered in order to understand the overall health status and experiences of women in Kalyani slums.

When CLTS was implemented in Kalyani, open defecation was rampant in almost all slums of Kalyani and consequently there was a high incidence of diseases among the slum children, relatively high incidence of infant mortality and maternal mortality rates, lack of education and awareness about basic hygiene, etc. But the situation has changed radically in the Kalyani slums after the achievement of ODF status. Overall, women across age groups from both the slum communities reported a lower incidence of illnesses such as diarrhoea and other health problems both personally and in their families, especially among the children. This has led to fewer hospital visits and an increase in disposable incomes because of lower medical expenditure. Women stated that with the presence of toilets in their homes, their experiences during menstruation had become more pleasant as they had a private and clean space to maintain their hygiene. Women across all age groups expressed a sense of security, safety and convenience due to the presence of toilets in their homes.

Other positive benefits included the time saved to undertake other activities; the ability to carry out their tasks and daily activities in a more organised manner; and improved earnings and livelihood opportunities. Most women expressed a feeling of pride and higher social standing with the ownership of a toilet. Greater consciousness about sanitation had led to improvement in other living conditions and other collective efforts in both the slum communities. In Harijan Para, women's collective efforts had succeeded in eradicating alcoholism in the community. Though the men at first resisted these efforts, they felt the need to make changes in their lives once their sanitation and health status had started improving. Women had played a lead role in making their communities ODF and this experience had enabled them to exercise agency in many areas of their lives, both within their households and in the community. Women in Harijan Para said that this community-led action not only had brought benefits to them in terms of sanitation and health but had empowered them in many other ways. For the first time, women were included in any decision-making process in their own homes or in the community. This collective decision-making process created greater self-confidence among the women.

When CLTS was implemented in the slums of Kalyani, the Municipality played a very limited role in the welfare of the slum communities, not least because the residents were considered illegal occupants. The success of the community members in improving their sanitation status on their own, and the national recognition that the local communities and the Municipality received, has led to the Municipality paying more attention to the needs of the slum population. As a result, and quite uniquely, the slum communities are included in urban infrastructural design and planning (e.g. connections to the main sewerage line).

Kalyani stands out because it was the first successful attempt to apply CLTS to an urban context as a means of transforming collective behaviour change as a strategy to stop open defecation and promote hygiene practices. This led to further improvements to the slum colonies, including access to basic services, and also to tenure security being attained in a number of cases. Kalyani's success is also unique because usually in the urban sanitation landscape, the needs of the urban poor, especially slum dwellers who are considered unauthorised occupants of the land, are often ignored and bypassed. During urban planning processes, the tendency has been to adopt a technocratic approach that relies on standardised top-down solutions. These usually failed because people either did not use the toilets that had been provided or they used them for other purposes. CLTS was a departure from the traditional approach of 'prescribing solutions' to the urban poor. Instead, it focused on enabling community members to mobilise for collective action to address their own sanitation needs. Once the community collectively started achieving their sanitation goals, they extended this spirit and energy to efforts to gain access to other basic services. The case of Kalyani is also unique because several factors worked in favour of achieving the success that it enjoyed and still enjoys. One was the political will exercised by the Chairman of the Municipality, together with the presence of committed health professionals in his team and the presence of educated ward councillors who understood the benefits of a community-led approach in achieving sanitation outcomes. Second was the direct involvement of Dr Kamal Kar in implementing CLTS in Kalyani, with support received from DFID, and the implementation of the KUSP project which facilitated this process. Third, Kalyani was a planned municipal town, lived in by upper-middle class families, who were very anxious for open defecation to be eradicated in their surrounding areas and therefore they were willing to extend any support to the Municipality for this purpose.

Despite these unique features, Kalyani holds valuable lessons for the replication of community-led success in achieving total sanitation coverage and positive health outcomes for other Municipalities. These include the need for the political will and commitment of local institutional actors to achieving long-term change, and their ability to mobilise resources and capacity to work with the community. The Kalyani example also effectively demonstrates the very important role that institutional actors such as politicians, administrators, health workers, engineers, contractors, etc., can play in achieving successful outcomes, not as direct implementers of the programme or as providers of infrastructure, but as facilitators supporting the community to design and implement its own initiatives.

The challenges in sustaining the achieved health outcomes in Kalyani are numerous, however. Several issues could potentially put at risk the health of the residents if not addressed urgently. It is essential that action be taken to ensure the safe disposal of confined excreta; the current practice is injurious for the environment as well as for the health and the dignity of the *dalits* who are engaged in manual collection and disposal of human waste in the slum communities. Technology must be upgraded in order to avoid contamination of water and to ensure that people move up along the sanitation ladder, in terms of facilities as well as of behaviour change. The issue of land ownership is very contentious but must be addressed to enable people to take ownership and invest in better sanitation facilities. The government programmes also need to be better targeted in order to cover entire populations and support them to upgrade their technologies so as to improve and sustain their sanitation and hygiene behavioural practices.

In conclusion, Kalyani shows that it is possible to address sanitation challenges through health initiatives in an urban slum area. Solving the sanitation problem requires a multi-sectoral integrated approach with the engagement of multiple stakeholders. At the centre of any initiative, however, has to be the community, which has to take ownership and accept accountability for their sanitation and hygiene behaviour and practices. In the case of Kalyani, the role of local women was crucial and they became powerful agents of change. Sanitation also needs to be viewed as a public good that requires collective behaviour

change (also on the part of bureaucrats) and action. The achievement of 'total' sanitation or an ODF environment should not merely stop at the construction of individual toilets; issues such as sustainability, waste containment, livelihood security, gender empowerment, etc., need to be part and parcel of all programmes. Kalyani also provides a strong case for collective community demand and action in activating and strengthening formal health delivery systems and integrating health programmes into sanitation initiatives. The direct outcome that sanitation initiatives strive for is better health, so making sanitation the responsibility of health departments (rather than departments dealing with infrastructure, rural development, etc.) can make sense. Still, too narrow a focus on health benefits can mean overlooking the multiple benefits that sanitation programmes can offer in terms of gender equality. These include issues concerning dignity, security, enhanced wellbeing and bargaining power of women, etc., that cannot be captured within a narrow health lens. These non-health benefits are significant and can also go a long way towards helping to realise several Sustainable Development Goals (SDGs) and also may enable the realisation of health benefits (see Loevinsohn *et al.* 2014). Also, as pointed out in this study, an enabling external environment and conducive institutional context, over and above the collective action undertaken by women themselves, are crucial to the achievement of these benefits.

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