Pathways to sustainability in community-led total sanitation. Experiences from Madhya Pradesh and Himachal Pradesh

ANDRÉS HUESO GONZÁLEZ

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PATHWAYS TO SUSTAINABILITY IN COMMUNITY-LED TOTAL SANITATION. EXPERIENCES FROM MADHYA PRADESH AND HIMACHAL PRADESH

Andrés Hueso González

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Supervisors:

Dr. Alejandra Boni Aristizábal

Departamento de Proyectos de Ingeniería - Universitat Politècnica de València

Dr. Kamal Kar

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"Sanitation is more important than political independence" *Mahatma Gandhi*

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Abstract

Community-Led Total Sanitation (CLTS) is a an approach where facilitation –using participatory methods– enables communities to analyse their sanitation conditions and the risks of open defecation and thus triggers a desire in the community to take their own action and become open defecation free (ODF). CLTS has proved to work better than past approaches and has quickly expanded all over the world. In India, where more than half of the world's open defecators concentrate, CLTS faces difficulties, primarily due to some incompatibilities with the national sanitation campaign, but there are several areas where it has been introduced with certain success. Apart from that, there are evidences of communities reverting to open defecation –in India and elsewhere– which raises important questions about the sustainability of the outcomes of CLTS.

Trying to shed some light on these issues, the present thesis aims at exploring the experiences of introduction of CLTS in Madhya Pradesh (MP) and Himachal Pradesh (HP), looking both at the policy process that shaped the sanitation intervention and at how and to what extent they contributed to sustainable sanitation. I use an analytical framework inspired in the Pathways Approach, where sustainability is seen from a dynamic and normative point of view –maintained ODF with increased social justice– and where the policy processes around sustainability, including policy narratives, agents and interests, are very relevant. I take three case studies for the analysis: Khandwa district (MP), Mandi district (HP) and Budni block (MP). The methodology is primarily qualitative and is based on interviews at all administrative levels and on intensive field research, including short visits to many Gram Panchayats (GP) and an in-depth study in a selected GP in each case study area.

Evidences are diverse in each area. In Khandwa district CLTS was introduced in 2007. State level pressure to obtain sanitation awards and local vested interests resulted however in a mixed approach, using CLTS triggering tools but with supply-led subsidised latrine construction. Initial progress was uneven and there was reversion to open defecation later on. Some of the main causes were low appropriation, poor construction quality and lack of priority after the sanitation awards and post transfers of champions. In Mandi district, with an enabling state sanitation policy and supported by a local NGO, motivated district authorities started in late 2006 a sanitation campaign inspired in CLTS principles, but using community theatre and door to door visits instead of CLTS triggering. Latrine use increased sharply and has maintained, changing the social perception of sanitation. In Budni block, a CLTS champion became block CEO. His experience and the support of UNICEF helped counter conflicting interest and start a campaign coherent with CLTS in late 2010. GPs were triggered and monitoring committees created in order to make their GPs ODF. Still in the early stages, the campaign was observed to contribute to collective behaviour change in a considerable part of the area.

Some conclusions are drawn from these evidences. First, India's sanitation campaign is implemented in a top-down and supply-driven way which is contrary to its official guidelines, principally due to interests of the actors involved, such as political patronage, technocratic inertia or misdirected accountability. This also makes the introduction of CLTS at scale a difficult and complex policy process; competing interests can lead to mixed approaches and poor results. But when the agents promoting CLTS have the power and the commitment, coherence can be achieved and results are impressive.

What makes sanitation interventions successful is that the GPs appropriate the sanitation issue, work in committees in order to stop open defecation and make the collective perspective of sanitation prevalent. CLTS triggering –but also other emotional tools like community theatre– can mobilise a group of people to form such a committee. However, this is just a first step in the longer and difficult process of changing the social perspective of sanitation, and the committees will need adequate support. Further, GPs generally have strong diversity and social divides, lacking a sense of community. Thus, inclusiveness of all sections in triggerings and committees becomes important for reaching everybody. Similarly, mutual help cannot be taken for granted but needs to be promoted. Finally, the technological *laissez-faire* in CLTS has been observed to lead to inefficient designs which affect sustainability and can generate health hazards. However, where the collective perspective becomes entrenched, many emerging challenges are responded to adequately.

In addition to enriching the understanding about CLTS and the process towards sustainable sanitation –including its policy dimension–, the thesis also contributes to knowledge by developing a comprehensive methodology and analytical framework, tailored to analysing sanitation experiences.

Resum

Community-Led Total Sanitation (CLTS) és un enfocament de sanejament basat en la facilitació participativa per tal que les comunitats rurals analitzen la seua situació sanitària i els riscos de la defecació a l'aire lliure. Així, es genera un desig per part de la comunitat de passar a l'acció i convertir-se en un lloc lliure de defecació a l'aire lliure (ODF - *open defecation free*). L'enfocament CLTS ha demostrat ser més efectiu que enfocaments anteriors i s'ha expandit ràpidament per tot el món. A l'Índia, on es concentra més de la meitat de la població del món que defeca a l'aire lliure, el CLTS s'enfronta a certes dificultats, principalment a causa de la incompatibilitat amb la campanya de sanejament del govern indi, però hi ha algunes àrees on sí que s'ha pogut introduir amb un cert èxit. D'altra banda, hi ha evidències de comunitats –tant a l'Índia com en altres llocs– que tornen a defecar a l'aire lliure després d'haver sigut declarades ODF. Això planteja preguntes importants en relació a la sostenibilitat dels resultats del CLTS.

Per a llançar llum sobre aquestes qüestions, aquesta tesi pretén explorar les experiències d'introducció del CLTS a Madhya Pradesh (MP) i Himachal Pradesh (HP), tenint en compte tant el procés polític que va determinar la intervenció en l'àmbit local, com els mecanismes a través dels quals aquesta intervenció va contribuir al sanejament sostenible. Per a això, utilitze un marc analític inspirat en el *Pathways Approach*, on la sostenibilitat és entesa des d'una perspectiva dinàmica i normativa – que es mantinga l'estatus ODF amb més justícia social– i on es dóna rellevància als processos polítics entorn de la sostenibilitat, incloent-hi el discurs, els agents i els interessos polítics. Utilitze tres casos d'estudi: Khandwa district (MP), Mandi district (HP) i Budni block (MP). La metodologia és predominantment qualitativa, basada en entrevistes a tots els nivells administratius i en treball de camp intensiu, incloses visites curtes a múltiples comunitats i estudis en profunditat en una comunitat en cada cas d'estudi.

Les evidències varien per a cada cas. A Khandwa district, el CLTS va ser introduït el 2007. Però a causa de la pressió per part de l'estat (MP) per a aconseguir premis de sanejament i els interessos creats a nivell local, es va acabar utilitzant un enfocament mixt, amb eines participatives del CLTS, però basat en la construcció de latrines amb subsidis. El desigual progrés inicial no es va mantenir, i moltes famílies van tornar a defecar a l'aire lliure al cap d'un temps. Les principals causes van ser la falta d'apropiació, la baixa qualitat de construcció i la falta d'interès després de l'obtenció dels premis i el trasllat administratiu dels qui van liderar la introducció del CLTS. A Mandi district, amb una política estatal (HP) favorable i el suport d'una ONG local, autoritats motivades pel sanejament van iniciar el 2006 una campanya inspirada en els principis del CLTS, però usant el teatre comunitari i visites porta a porta en lloc de les eines del CLTS. L'ús de latrines va créixer radicalment i s'ha mantingut, i ha canviat la percepció social sobre el sanejament. A Budni block (MP), un impulsor del CLTS es va convertir en màxima autoritat administrativa de la demarcació. La seua experiència i el suport d'UNICEF van contrarestar interessos oposats i permeteren l'engegada, a la fi del 2010, d'una campanya coherent amb el CLTS. Es van realitzar facilitacions en nombroses comunitats, que van formar comitès de sanejament per a fer les seues comunitats ODF. Encara que era una fase inicial, es va poder observar que la campanya estava contribuint al canvi de comportament col·lectiu en una part considerable de la regió.

Cal extraure una sèrie de conclusions a partir d'aquestes evidències. En primer lloc, la campanya de sanejament de l'Índia s'implementa de forma vertical i sense tenir en compte la demanda local, en contra de les directrius oficials. Això es deu a interessos de diferents actors: clientelisme polític, inèrcia tecnocràtica o rendició de comptes mal orientada. Tot això afecta també el CLTS, fent complicada la introducció a gran escala: els interessos oposats poden donar lloc a enfocaments mixts i resultats pobres. Però, quan els agents que impulsen el CLTS tenen el poder i el compromís suficients, són capaços d'assolir intervencions coherents, amb resultats excel·lents. El que fa que les intervencions tinguen èxit és que les comunitats s'apropien del problema del sanejament, treballen en comitès per a acabar amb la defecació a l'aire lliure i aconseguisquen fer prevaldre la perspectiva col·lectiva sobre el sanejament. La facilitació mitjançant el CLTS –però també altres eines basades en les emocions, com el teatre comunitari– poden mobilitzar un grup de persones per a formar un comitè. Tanmateix, es tracta només d'un primer pas dins del llarg i difícil procés de canviar la perspectiva social del sanejament, per la qual cosa aquest comitè necessitarà un suport adequat. A més, les comunitats solen presentar diversitat i fortes bretxes socials, i falta per tant un sentiment d'unitat. Així, la inclusió de tots els grups en la facilitació i en els comitès es converteix en un element crucial per a arribar a tota la comunitat. De la mateixa manera, no es pot donar per fet que les famílies més necessitades reben ajuda d'altres famílies, sinó que això s'haurà de promoure. Finalment, s'ha observat que, per falta de suport tècnic, hi ha dissenys de latrina ineficients que afecten la sostenibilitat i poden provocar riscos sanitaris. En qualsevol cas, quan la perspectiva col·lectiva de sanejament s'assenta en una comunitat, molts dels desafiaments que apareixen reben una resposta adequada.

A més d'enriquir la comprensió sobre el CLTS i el procés cap al sanejament sostenible –incloent la seua dimensió política–, la tesi també realitza una contribució al coneixement al desenvolupar una metodologia i marc teòric exhaustius, adaptats a l'anàlisi d'experiències de sanejament.

Resumen

Community-Led Total Sanitation (CLTS) es un enfoque de saneamiento basado en la facilitación participativa para que las comunidades rurales analicen su situación sanitaria y los riesgos de la defecación al aire libre. Así, se genera un deseo por parte de la comunidad de pasar a la acción y convertirse en un lugar libre de defecación al aire libre (ODF - open defecation free). El enfoque CLTS ha demostrado ser más efectivo que enfoques pasados y se ha expandido rápidamente por todo el mundo. En la India, donde se concentran más de la mitad de los defecadores al aire libre del mundo, el CLTS se enfrenta a ciertas dificultades, principalmente debido a la incompatibilidad con la campaña de saneamiento del gobierno indio, pero existen algunas áreas dónde sí ha podido ser introducido con cierto éxito. Por otro lado, existen evidencias de comunidades –tanto en India como en otros lugares– que vuelven a defecar al aire libre después de haber sido declaradas ODF. Esto plantea preguntas importantes en relación a la sostenibilidad de los resultados del CLTS.

Para arrojar luz sobre estas cuestiones, esta tesis pretende explorar cómo contribuyó la introducción del CLTS en Madhya Pradesh (MP) y Himachal Pradesh (HP) al saneamiento sostenible, teniendo en cuenta tanto el proceso político que determinó la intervención en lo local, como los mecanismos a través de los que dicha intervención contribuyó al saneamiento sostenible. Para ello, utilizo un marco analítico inspirado en el Pathways Approach, donde la sostenibilidad es entendida desde una perspectiva dinámica y normativa –que se mantenga el estatus ODF con mayor justicia social– y donde se da relevancia a los procesos políticos entorno a la sostenibilidad, incluyendo narrativas, agentes e intereses políticos. Utilizo tres casos de estudio: Khandwa district (MP), Mandi district (HP) y Budni block (MP). La metodología es predominantemente cualitativa, basada en entrevistas a todos los niveles administrativos y en trabajo de campo intensivo, incluyendo visitas cortas a múltiples comunidades y estudios en profundidad en una comunidad en cada caso de estudio.

Las evidencias varían para cada caso. En Khandwa district, el CLTS fue introducido en 2007. Pero debido a la presión por parte del estado (MP) para conseguir premios de saneamiento y los intereses creados a nivel local, se acabó utilizando un enfoque mixto, con herramientas participativas del CLTS, pero basado en la construcción de letrinas subsidiadas. El desigual progreso inicial no se mantuvo, y muchas familias volvieron a defecar al aire libre al cabo de un tiempo. Las principales causas fueron la falta de apropiación, la baja calidad de construcción y la falta de interés tras la obtención de los premios y el traslado administrativo de quienes lideraron la introducción del CLTS. En Mandi district, con una política estatal (HP) favorable y el apoyo de una ONG local, autoridades motivadas con el saneamiento iniciaron en 2006 una campaña inspirada en los principios del CLTS, pero usando teatro comunitario y visitas puerta a puerta en lugar de las herramientas del CLTS. El uso de letrinas creció radicalmente y se ha mantenido, cambiando la percepción social sobre el saneamiento. En Budni block (MP), un impulsor del CLTS se convirtió en máxima autoridad administrativa del bloque. Su experiencia y el apoyo de UNICEF contrarrestaron intereses opuestos y permitieron la puesta en marcha a finales de 2010 de una campaña coherente con el CLTS. Se realizaron facilitaciones en numerosas comunidades, que formaron comités de saneamiento para hacer sus comunidades ODF. Aunque aún

en una fase inicial, se pudo observar que la campaña estaba contribuyendo al cambio de comportamiento colectivo en una parte considerable de la región.

Cabe extraer una serie de conclusiones a partir de estas evidencias. En primer lugar, la campaña de saneamiento de la India se implementa de forma vertical y sin tener en cuenta la demanda local, en contra de las directrices oficiales. Esto se debe a intereses de distintos actores: clientelismo político, inercia tecnocrática o rendición de cuentas mal orientada. Todo ello afecta también al CLTS, haciendo complicada su introducción a escala: los intereses opuestos pueden dar lugar a enfoques mixtos y resultados pobres. Pero cuando los agentes que impulsan el CLTS tienen el poder y el compromiso suficientes, son capaces de lograr intervenciones coherentes, con sobresalientes resultados. Lo que hace que las intervenciones sean exitosas es que las comunidades se apropien del problema del saneamiento, trabajen en comités para acabar con la defecación al aire libre y logren hacer prevalecer la perspectiva colectiva sobre el saneamiento. La facilitación mediante CLTS –pero también otras herramientas basadas en las emociones, como el teatro comunitario– pueden movilizar a un grupo de personas para formar un comité. Sin embargo, se trata solo de un primer paso dentro del largo y difícil proceso de cambiar la perspectiva social de saneamiento, por lo que dicho comité necesitará un apoyo adecuado. Además, las comunidades suelen presentar diversidad y fuertes brechas sociales, faltando pues un sentimiento de unidad. Así, la inclusión de todos los grupos en la facilitación y en los comités se convierte en un elemento crucial para alcanzar a toda la comunidad. De la misma manera, no se puede dar por descontado que las familias más necesitadas vayan a recibir ayuda de otras familias, sino que se deberá promover. Finalmente, se ha observado que por falta de apoyo técnico existen de diseños de letrina ineficientes que afectan a la sostenibilidad y pueden provocar riesgos sanitarios. En cualquier caso, cuando la perspectiva colectiva de saneamiento se asienta en una comunidad, muchos de los desafíos que aparecen reciben una respuesta adecuada.

Además de enriquecer la comprensión sobre el CLTS y el proceso hacia el saneamiento sostenible –incluyendo su dimensión política–, la tesis también realiza una contribución al conocimiento al desarrollar una metodología y marco teórico exhaustivos, adaptados al análisis de experiencias de saneamiento.

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List of abbreviations

APL	Above Poverty Line
BPL	Below Poverty Line
CBO	Community-Based Organization
CEO	Chief Executive Officer
CHAST	Child Hygiene and Sanitation Training
CHC	Community Health Clubs
CLTS	Community-Led Total Sanitation
CRSP	Centrally Sponsored Rural Sanitation Programme
DDWS	Department of Drinking Water Supply
DFID	Department for International Development (UK Aid Agency)
DRDA	District Rural Development Agency
DWSM	District Water and Sanitation Mission
GoI	Government of India
GP	Gram Panchayat (lowest level administrative unit, formed by one or several villages)
HP	Himachal Pradesh
IDRC	International Development Research Centre
IEC	Information, Education and Communication
IRC	International Resource Centre (on water supply, sanitation and hygiene)
JMP	Joint Monitoring Programme for Water Supply and Sanitation
MDG	Millennium Development Goal
MNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MP	Madhya Pradesh
NBA	Nirmal Bharat Abhiyan (Clean India Campaign)
NGO	Non-Governmental Organisation
NGP	Nirmal Gram Puraskar (Clean Village Award)
OD	Open Defecation
ODF	Open-Defecation Free
PA	Pathways Approach
PHAST	Participatory Hygiene And Sanitation Transformation
SCOTS	Sustainable Community-Owned Total Sanitation
SLTS	School-Led Total Sanitation
SLWM	Solid and Liquid Waste Management
SWSM	State Water and Sanitation Mission
TSC	Total Sanitation Campaign
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
VERC	Village Education Resource Centre
VIP	Ventilated Improved Pit (Latrine)
WASH	Water, Sanitation and Hygiene
WCED	World Commission on Environment and Development
WHO	World Health Organisation
WSP	Water and Sanitation Program, World Bank
WSSCC	Water Supply and Sanitation Collaborative Council

List of Hindi words

Anganwadi	Government sponsored pre-school and child-care centre
Gram Panchayat	Lowest level of self-government. Can comprise a single village or several. The Gram Panchayat body is composed by the Sarpanch, Upsarpanch and Panches
Gram Sabha	Regular village assembly (at least twice a year) open to all adults living in the area of the GP
Nirmal Bharat Abhiyan	Literally, Clean India Campaign. It is the campaign succeeding the Total Sanitaiton Campaign
Panch	Also known as ward member, it is the elected representative of the ward
Pradhan	Word used for the GP Sarpanch in Himachal Pradesh and other states
Sarpanch	Elected head of the Gram Panchayat
Upgram Sabha	Ward-level assembly
Uppradhan	Word used for the GP Upsarpanch in Himachal Pradesh and other states
Upsarpanch	Elected vice-head of the Gram Panchayat
Ward	Sub Gram Panchayat level unit

1. Introduction

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1.1. Outline of the chapter

This introductory chapter starts with a section where I briefly set the overall scene of sanitation in development and the arrival of Community-Led Total Sanitation (CLTS) both to the sector in general and to India in particular. The subsequent section deals with the research aims and includes a reflection about myself as researcher and the epistemological position I take in this thesis. Definitions of relevant concepts follow, including sanitation, sanitation interventions latrines and sustainability and the chapter ends with a brief outline of the thesis.

The word clouds at the end of each outline represent the most repeated words in the chapter (always excluding the word 'sanitation' and common words).

1.2. Setting the scene

2.500.000.000 people will defecate today in the open or in unsanitary facilities (WHO, UNICEF 2012). Although latrine coverage increased from 49% in 1990 to 63% in 2010 (WHO, UNICEF 2012), the 75% target level of the related Millennium Development Goal (MDG) won't to be reached in 2015. This global vast deficit in sanitation is overwhelmingly concentrated in developing countries, especially in rural areas. Southern Asia leads –41% coverage–, with 626 million people defecating in the open, most of them in India (WHO, UNICEF 2012). Open defecation increases the incidence of diarrhoea –among other diseases–, which kills 1.5 million children every year (UN-Water 2008). Lack of access to latrines also affects privacy, education, self-esteem, security and dignity.

Although it is said that an international sanitary revolution started in 1981, its progress is quite slow. The main reason is the lack of political priority of sanitation in the international scenario (Black, Fawcett 2008). Another cause is the fact that sanitation interventions have generally been target-driven large scale programmes, which consist of building household latrines, free of cost or heavily subsidized. These solidly constructed latrines have been 'planted' all over the world. In most cases, latrines were never used or people stopped using them when they fell in disrepair or pits filled up. Sanitation approaches slowly evolved. Nowadays, more emphasis is put in low-cost latrine options and the focus has to some extent shifted from building to behaviour change (Black 1998). However, outcomes have not improved substantially.

With the new millennium, an innovative approach, inspired in the participatory tradition, burst onto the sanitation sector: Community-Led Total Sanitation (CLTS) approach. CLTS advocates for the self-mobilization of the community in order to make their environment open-defecation free (Kar, Chambers 2008). CLTS uses participatory tools and focuses on collective behaviour change in order to trigger the desire of the community to change their sanitation practices and empower them to collectively create an open-defecation free (ODF) environment. The 'outsider' only facilitates the analysis of the sanitary situation, but it is the community who leads the process, with the overall aim to eradicate open defecation. They motivate each other and build latrines, without financial support or technical prescription. Instead, the people are motivated to develop innovative designs, use the materials that fit better to their context and capacities and help the least able in their community (Kar and Chambers, 2008).

Although it is difficult to give a number, CLTS is considered to have a big impact (Movik, Mehta 2009), and there are evidences of large-scale achievements in many countries of Asia and Africa, transforming people's perceptions and practices of sanitation (Chambers 2009). But research has also revealed that there are many villages that became ODF but were not able to remain so for long (Movik, Mehta 2009), as latrine constructions break down or pits are filled up. Due to these evidences, some researchers have raised important questions about CLTS' sustainability and have drawn attention to the challenges it faces (Movik, Mehta 2009, Movik 2008, Chambers 2009).

Although CLTS has been adopted in many countries, India did not take it up. CLTS experiences in the country are confined to specific areas, taken forward by individual champions at the administration with support of international agencies. These champions had to negotiate a mixed approach, with elements from CLTS and from the national Total Sanitation Campaign. Little is known about what actually happened at the ground level.

This thesis aims at contributing to fill this knowledge gap by looking at the experiences in two states: How were these processes? Did they bring about significant and sustained changes? What lessons can be drawn from them for the future of CLTS and sanitation in India and elsewhere?

At a theoretical level, there is little conceptual development of the idea of sustainability in sanitation, too. Thus, the research also wants to contribute to the construction of a framework for its understanding. For doing so, it takes the Pathway Approach as the stepping stone and adapts it to sanitation, so that the relevant environmental, technological, social and political dimensions involved in sanitation interventions are brought together under one approach.

In the next section, I present the aims of the research, as well as my positionality and epistemological perspective.

1.3. The research and the researcher

Aim of the research

The aim of the research is to explore the ways in which the introduction of Community-Led Total Sanitation in Madhya Pradesh and Himachal Pradesh contributed to sustainable sanitation.

The research has two levels of analysis. First, at the policy level, I want analyse how the policy processes around the introduction of CLTS shaped the resulting sanitation interventions. I then try to understand how and to what extent the interventions led to sustainable sanitation.

Three case studies in the states of Madhya Pradesh and Himachal Pradesh will be explored. The Pathways Approach, with its specific perspective on sustainability, is used as analytical framework.

The author

Positionality refers to the background, values and identities that can shape one's way of approaching, understanding and interpreting reality (Sumner, Tribe 2008). It is an issue every researcher should reflect on and make explicit in its work. Even more in international development research, where there is a risk to impose –consciously or not– elite or western perspectives on 'the other'. Instead of neglecting or concealing these potential biases, the development researcher should acknowledge that

human interest and knowledge are inseparable (Habermas 1971) and share his or her positionality and values with the readers, so that they can go through the work wearing his or her 'glasses'.

My positionality is affected first by my background in engineering, so watch out for any over-emphasis on technological issues or for excessive compartmentalization. My master studies on development processes and politics hint to potential biases towards focusing on participation and power issues. From my research experiences in Bolivia and Angola remains a belief in the relevance of local contexts and a passion for mixed methods. I am Valencian and Spanish, male, 30 and working on my PhD at the University. My understanding of development is close to the capability approach (Sen 1999) and to rights based approaches, which will inevitably shape my interpretations. As a researcher, the practical cognitive interest (intersubjective understanding for action) and the emancipatory cognitive interest (reflective and liberating self-formative process) prevail over the technical one (extension of technical control over the environment) (Habermas 1971).

The journey that brought me to this PhD is also a relevant. As an engineer involved in development, my research topics generally relate to development interventions with technological component. I had assessed micro hydro power projects in Bolivia before, and was looking forward to a similar topic for my PhD. Through my supervisor's network, I had the opportunity to meet Kamal Kar, CLTS pioneer, and see the results of CLTS in Kalyani, near Kolkatta. There, the idea of doing my PhD on CLTS emerged. Though less technological, the topic suited my broad research interests. The possibility of studying an innovative an expanding approach was also very exciting. Access to interesting experiences was not a problem. My passion for lost and unpopular causes –and sanitation is a much neglected issue– also favoured my final decision to take the topic.

Epistemological position

Since the Ancient Greece, philosophers and scientists have been concerned about the nature of reality (ontology) and knowledge (epistemology): what exits, what is knowable and how we can know about it? This question, about which one should think before conducting a research, have generally been answered from two paradigms: positivism and interpretivism.

Rooted in the natural sciences, **positivism** started to be applied to the social sciences in the 19th century. It is grounded on the belief that reality exists independent of its observer and that it can be observed and described from an objective point of view. Knowledge is generated through scientific research, aimed to discovering the truth. Research is neutral and the researcher is independent of the researched.

But in the transition to the 20th century, **interpretivism** emerged as a critique to the positivist monolithic perspective on knowledge: reality does not exist independently of our experience. Instead, there are multiple realities, understood as mental constructions, which can be experienced. Knowledge is constructed through people's interpretations, in an iterative and interactive process between investigator and subject, which are mutually dependent. The aim of research, inevitable

value-laden, is not to discover the 'truth', but to arrive at ever more sophisticated and informed constructions of the world (Molteberg, Bergstrøm 2000, Guba, Lincoln 1994, Sumner, Tribe 2008).

In the last decade, however, **realism** has come up, challenging or bridging the positivist-interpretivist division (Sumner, Tribe 2008). Realists believe there is an objective reality, which exists independently of the observer's cognition and understanding. However, the researcher is a dependent observer, and therefore cannot establish the truth about that reality, but only describe it. Knowledge is a social construct, but one which aims to explain reality (Sumner, Tribe 2008, Molteberg, Bergstrøm 2000).

Scientific disciplines tend to have a common epistemological perspective, a set of shared underlying assumptions rooted in a specific paradigm, which generates a way of problematizing issues, provides criteria for assessing the quality or validity of a research and informs the theories or conceptual frameworks and the methodologies chosen for research (Sumner, Tribe 2008).

In the case of development studies –a field which synthesizes various disciplines– different perspectives co-exist, for example statistical publications of international agencies are rooted in positivism whilst post-development discourse relies on interpretivism (Sumner, Tribe 2008). The co-existence of disciplines can result in discrepancies about intellectual legitimacy among researchers. But there are also many cross-disciplinary works in development studies. These tend to take a specific epistemological perspective in the continuum of positivism-realism-interpretivism, which generally results from the combination of the underlying assumptions of the disciplines involved. This can result in epistemological contradictions when the combination is not consistent.

Thus, cross-disciplinarity demands that development researchers are critically aware upon their underlying assumptions, reflect on the epistemological perspective from which they approach the researched and make both explicit.

This thesis is conducted within the critical realist approach, with strong relevance of the interpretive dimension.

I believe reality is best described as whatever exists, be it natural or social, be it observable or not. It includes physical and social objects and their actual and potential structures and powers, and is independent of our knowledge of it (Sayer 2000). Therefore, it is impossible to establish the truth about the reality. Each observer –including myself as a researcher– is dependent and has his own interpretation of it. Social phenomena, which are central to this research, are concept-dependent and constituted by meaning, but also have a non-discursive material dimension (Sayer 2000). Understanding these meanings (interpretive dimension) is central to the research process, but bearing in mind that they are related to material circumstances and practical contexts and not ruling out causal explanation. Further, research should be critical with the social practices studied, questioning established views and explanations of phenomena in order to contribute to emancipation and social transformation.

In my research, I try to observe material dimensions and gather the different interpretations around the researched reality in order to understand and describe it, but aspiring to a socially-constructed

description due to my dependency as observer. The understanding is constructed –as much as possible– through iterative and equitable interaction (van Wijk-Sijbesma 2001), also inputting my knowledge in the process as a contribution to critical understanding and change.

1.4. Definitions

Before moving to the literature review, it is important to define some of the key concepts that will be used continuously in the research. Other less relevant concepts are described within the main text.

Sanitation

Etymologically, the word sanitation derives from the Latin word, *sanitas*, which means health, soundness of body. It refers to the hygienic means for preventing human contact with the hazards of wastes, in order to maintain a clean environment and protect public health.

In the development sector, a more narrow definition is generally used, focusing on excreta and excluding garbage and wastewater. Sanitation refers thus to the management of human faeces in a manner that protects public and environmental health (McConville 2008). This is generally done using sanitary facilities –or latrines– that confine the excreta until they are composted or flush them away into a sewer (UN-Water 2008), separating them from human contact.

The Joint Monitoring Programme –which monitors sanitation internationally–, refers to sanitary facilities that safely confine excreta as improved sanitation. Unimproved sanitation stands for facilities that don't effectively cut the faecal-oral germs transmission (e.g. open pits). When there are no facilities at all the term open defection is used.

When an area has completely eliminated open defecation and faeces are safely managed, it is said to have achieved open defecation free (ODF) status.

Closely related to sanitation is the concept of hygiene. Hygiene refers to the behaviours which break the chain of infection transmission in the home and community. Therefore, it goes beyond the use of sanitary facilities, also involving management of other wastes; hand washing; personal hygiene; food hygiene while cooking, storing and eating; safe water storage; etc.

In this thesis, sanitation will refer to the use of latrines that confine excreta safely, impeding the transmission of its disease agents to humans. Unless otherwise stated, sanitation will imply improved sanitation.

Sanitation approaches

Sanitation approaches refer to the perspectives behind programmes, projects or activities that aim to promote sanitation. They have three dimensions: hardware, software and programming. **Hardware** stands for the sanitation technology: latrine design, components, materials, confinement or sewage system, etc. **Software** encompasses all the activities aimed to promoting a behaviour change towards sanitary practices (latrine use). **Programming** is a kind of meta-component. It involves the guiding principles, planning, institutional setting and implementation of the intervention.

Many times, sanitation programmes go in hand with hygiene interventions (e.g. hand washing promotion). In many other cases, there is also a water supply component, the so called WASH projects (Water Sanitation and Hygiene). This research focuses primarily on the sanitation aspects.

Latrine

The word latrine refers to the sanitary facility devised for receiving human excreta and then either confining or passing them on.

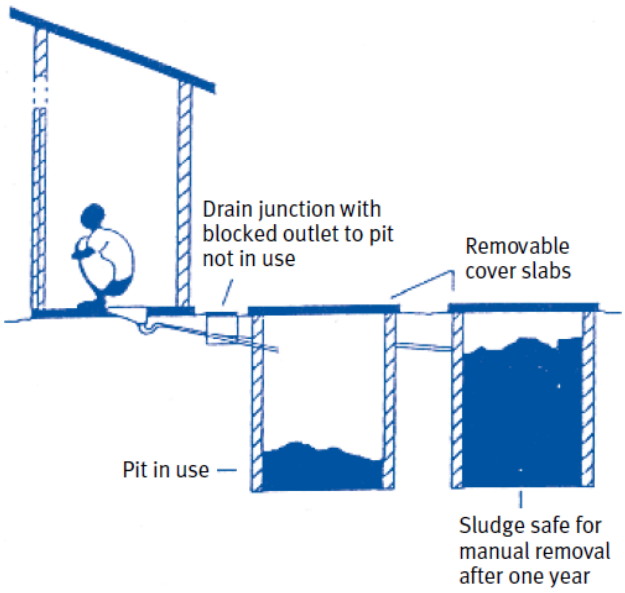

Figure 1: Pour flush twin pit latrine
(WaterAid 2008)

Excreta go through a pan –either sitting or squatting– or a simpler platform. When excreta are flushed with water, it is called a pour flush latrine, which generally has a U bend and a pipe. In contrast, in dry latrines excreta fall directly into a pit.

On-site sanitation systems (most used in rural areas) use confining systems, such as pits, container or septic tanks. In ecological sanitation, excreta are composted and used as fertilizer. Off-site sanitation includes a sewerage system for carrying excreta away.

When latrines are not part of the house, they include a superstructure, generally made out of 3 walls, a door and a roof, providing privacy and shelter.

There is no clear boundary between the words toilet and latrine, although the latter is more associated with squatting pans, and toilets to sitting pans or bowls. Both will be used interchangeably in this thesis.

In rural India, latrines are generally pour-flush on-site latrines with squatting pans.

Sustainability

The word sustainability is derived from the Latin *sustinere*, meaning to hold up. It refers to the ability to endure or maintain certain characteristics. In the development sector, the definition of the Brundtland Commission is the most popular. Sustainability development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In this thesis I use the normative understanding of sustainability from the Pathways Approach. Sustainability refers to the ability to maintain the system properties valued by particular social groups and linked to the goals of poverty reduction, social justice and environmental integrity, refined by different groups in particular settings (Leach, Scoones et al. 2010).

Sustainable sanitation

A sanitation system could be considered to be sustainable when it continues to work over time (Carter 2009). A more detailed definition specifies that it should protect and promote human health, not contribute to environmental degradation or depletion of the resource base, and be technically and institutionally appropriate, economically viable and socially acceptable (Bracken, Kvarnström et al. 2005, McConville 2008).

In thesis I use a similar definition, but adapted to the Pathways Approach and to the collective perspective of CLTS. Thus, sanitation sustainability refers to the ability of the community to maintain into the long term an ODF environment, in the face of challenges that arise. It will contribute to increased social justice with environmental integrity and take into account the perspective of the community, especially of those often marginalized.

The term sustainable sanitation is sometimes used interchangeably with ecological sanitation, but this won't be the case in this work.

1.5. Outline of the thesis

In chapter 1 I introduce the topic of the research, its objective and myself, reflecting on the epistemological position. Definitions of relevant concepts such as sanitation, sanitation interventions and latrines follow. And here is the outline of the thesis!

Chapter 2 is the literature review of sanitation. First, I give some headlines of the world's sanitation crisis and its consequences. In the history of sanitation in the development era, I trace the conceptual shifts over the last decades in the sector. Then I establish some defining categories of sanitation approaches, and briefly sketch some relevant contemporary approaches. After that, I expand on the Community-Led Total Sanitation (CLTS) approach, describing its logic, its history and current debates. Then I focus on India, describing the overall context, its sanitation history and policies and ending with the analysis of the story of CLTS in India.

In chapter 3, I describe the Pathways Approach, which is the theoretical framework that informs the perspective on sustainability used in this thesis. The vision of sustainability in sanitation, rooted in the perspective of the Pathways Approach, is presented, teasing out the elements that make sanitation sustainable (maintained ODF with increased social justice) and the social, technological and environmental dynamics involved. But sustainability cannot be dissociated from the policy processes surrounding it, involving different discourses, political agents, and diverging interests, which shape the resulting policy pathway and the intervention in the field. I end presenting the research questions.

Chapter 4 deals with the methodology. After a short reflection on research, I present the overall research strategy and justify the case study selection. I then describe the research tools in detail, as well as the recollection, analysis and dissemination stages. Finally, I reflect on ethical implications, on the research process and on its limitations.

In chapter 5, I present the evidences related to the policy process. I initially explain the broad national level sanitation policy process, in terms of narratives, agents and interests –as explained in chapter 3. I then move to the state level, describing the context and sanitation policies of Madhya Pradesh and Himachal Pradesh, relating them to the efforts to introduce CLTS there. Then, I analyse the local level policy process of introduction of CLTS in the three case study areas, and the interventions resulting from these, characterised according to the aspects described in chapter 2. Finally, I compare the three cases and discuss the evidences.

Chapter 6 tries to analyse the extent to which these interventions led to sustainable sanitation, as defined in chapter 3. For each of the case study areas, I start narrating the sanitation story of the Gram Panchayat selected for the in-depth study. I then assess the extent to which sustainability was achieved and the relevant dynamics involved, zooming out to the case study area. I finish comparing and discussing the evidences of the three cases.

In chapter 7, the conclusions, I first briefly summarise the research storyline and analyse the main findings of the research, relating the evidences discussed in the previous two chapters with the

theoretical elements of chapter 2 and chapter 3. Afterwards, I revisit the theoretical framework and the methodology used and present the research highlights. I finish the thesis with recommendations for the different areas and actors and for future research.

2. Sanitation globally and in India

Previous chapter *Go to Index* *Next chapter*

2.1. Outline of the chapter

Having presented the research in the previous chapter, in the present chapter I move to the literature review related to sanitation, in order to describe the state of the art and identify relevant issues for this research.

I first describe the world's sanitation crisis and its consequences on people's life, and give some details about the situation in India. In the subsequent section I try to trace the history of the sanitation sector in the development era, analysing the evolution regarding framings and political priority. I then establish some defining categories of sanitation approaches for conceptualising the main currents in the rural sanitation sector, which I apply first for describing the main broad mainstreaming approach nowadays and afterwards for analysing some of the most used approaches, highlighting their differences. After that, I expand on the Community-Led Total Sanitation (CLTS) approach, describing its history, logic and methodology and presenting some of the challenges it faces, as well as the issues related to scaling up. The final section is a particularisation of the chapter to India, first describing the broad country context, its sanitation history and related government policies and ending with the storyline of the introduction of CLTS in India and the challenges faced.

2.2. The sanitation crisis

A vast sanitation deficit

It is calculated that only 63% of the world's population has access to improved sanitation facilities (WHO, UNICEF 2012). This implies that 2.500.000.000 people do not have a clean and safe place to use for performing their bodily functions; they are obliged to defecate in the open or use unsanitary facilities. Although sanitation coverage has increased from 49% in 1990 to 63% in 2010 (WHO, UNICEF 2012), the Millennium Development Goal (MDG) target level of 75% in 2015 will be missed. A comparison with the water sector –89% coverage in 2010, reaching the MDG target five years ahead of schedule– gives an idea of the magnitude of the crisis.

This global vast deficit in sanitation is unevenly distributed. First, it is overwhelmingly concentrated in developing countries, as illustrates the figure below, with sub-Saharan Africa (30%) and Southern Asia (41%) showing the lowest coverage rates.

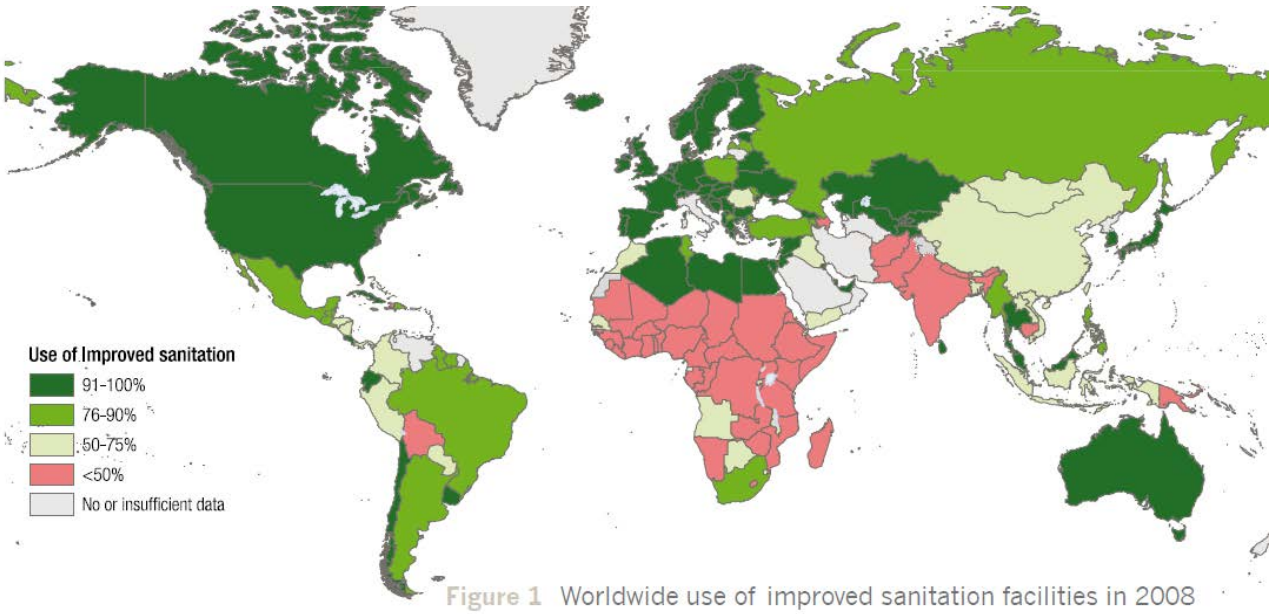

Figure 2: Map of improved sanitation coverage in 2008
(WHO, UNICEF 2010)

Geographically, Southern Asia and Eastern Asia host two thirds of the unserved population (WHO, UNICEF 2004). A further dimension of disparity is related to the urban rural divide; globally, improved sanitation facilities reach 79% per cent of the urban population, compared to 47% of the rural population (WHO, UNICEF 2012). Inequity also appears examining the distribution among income groups: the two poorest quintiles for more than half the global deficit (UNDP 2006). For example in Southern Asia, coverage among the poorest quintile is only 7% (WHO, UNICEF 2012).

The sanitation crisis is even bigger than data tell. Sanitation coverage indicates physical presence of an 'improved' facility, without taking into account whether it is working properly or even being used (UNDP 2006).

Why is sanitation important?

Traditional sanitation systems consist in setting aside common areas away from people's homes for men and women to use. Thus, in places where population is scattered, excreta are kept away from people's living. Traditional systems may have posed only little problems in the past, but not in today's ever more densely crowded world (UN-Water 2008). The absence of adequate sanitation facilities has terrible consequences, especially among those who live in shantytowns and crowded rural environments.

The most relevant set of consequences is related to health. Where open defecation (OD) is rampant, people are exposed to water-borne diseases, such as diarrhoea, cholera or environmental entheropathy (UN-Water 2008). These diseases should actually be called faecally-transmitted diseases, since the pathogens derive from faecal matter entering the mouth via contaminated drinking water, dirty hands, unwashed raw food or utensils.

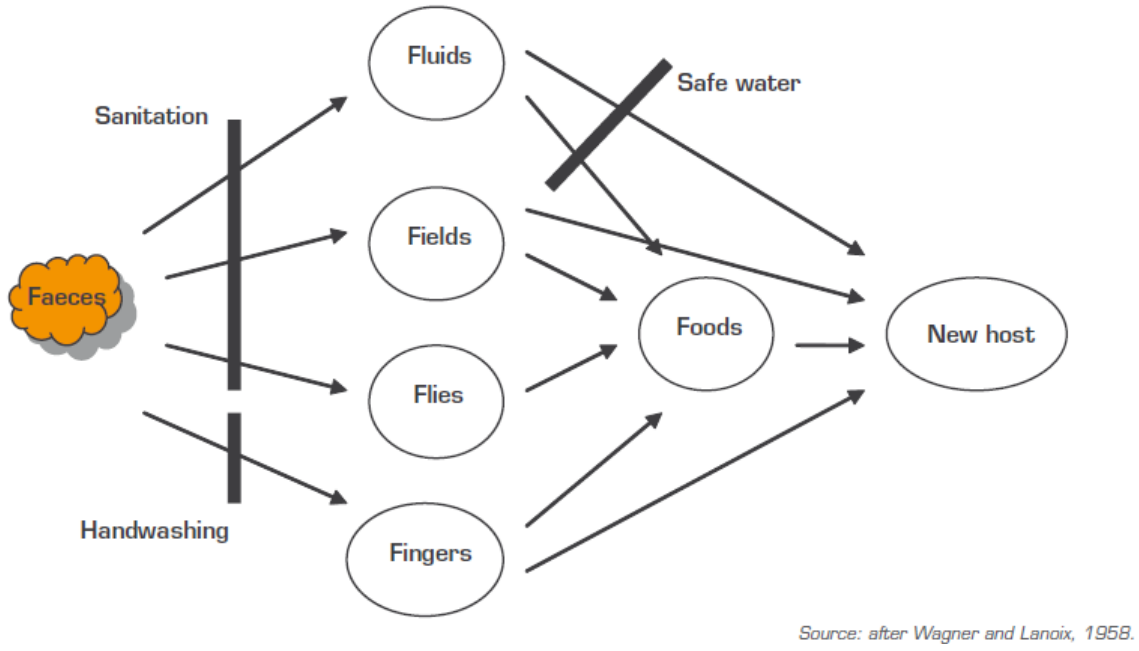

Figure 3: Faecal-Oral transmission routes
(WSSCC 2010)

Only diarrhoeal diseases, caused in 88% of the cases by lack of sanitation, poor hygiene practices and contaminated drinking water, are the second cause of death in children under five, killing 1.5 million children every year (UN-Water 2008). In addition to child mortality, faecally-transmitted diseases worsen income poverty and education opportunities due to loss of productive days; raise wider health

costs for the treatment needed; and generate lifecycle disadvantages associated with undernutrition in infancy and stunting (UNDP 2006).

These problems affect all the people living in an area where there is OD, not only those who do not have latrine, reinforcing thus the case for public action and joint efforts to make access to sanitation universal.

But inadequate sanitation is not only a serious problem due to its health and economic consequences. “Not having a safe, private and convenient toilet facility is a daily source of indignity as well as a threat to well-being” (UNDP 2006, p.111), especially for women, people with disabilities and the elderly (UN-Water 2008).

The gender dimension is very important in sanitation. Apart from the burden from caring for those who get ill, women defecating in the open are often more vulnerable to mock, assault and rape. This gets worse when there are few areas where they can have privacy for defecating and for menstrual hygiene, or where culturally they are expected to respect strict decorum rules. Women may then delay defecation or drink less in order to ‘go’ only before dawn or after dusk. Further, where toilet facilities are not available at schools, girls’ education is affected, chiefly because they don’t have privacy for managing menstrual hygiene (UN-Water 2008).

India, the superpower in open defecation

India is considered the epicentre of the world’s sanitation crisis. It is home to one third of the 2.5 billion people without access to improved sanitation (WHO, UNICEF 2012) and hosts 60% of those practicing open defecation in the world (WHO, UNICEF 2012).

Access to a latrine is a privilege that only 47% of the Indian population has access to (2011), as compared to 36.4% in 2001 (Government of India 2012). The situation is worse in rural settings, with 30.7% coverage in 2011, and 21.9% in 2001 (10% in 1991 and 1% in 1980) (WHO, UNICEF 2012, Government of India 2012).

Terming access to latrine as ‘privilege’ is sadly accurate, as it is not only unequal between rural and urban settings, but also amongst income levels. Rural improved sanitation reaches only 2% and 7% of the people in the two first wealth quintiles, with very little progress over the years.

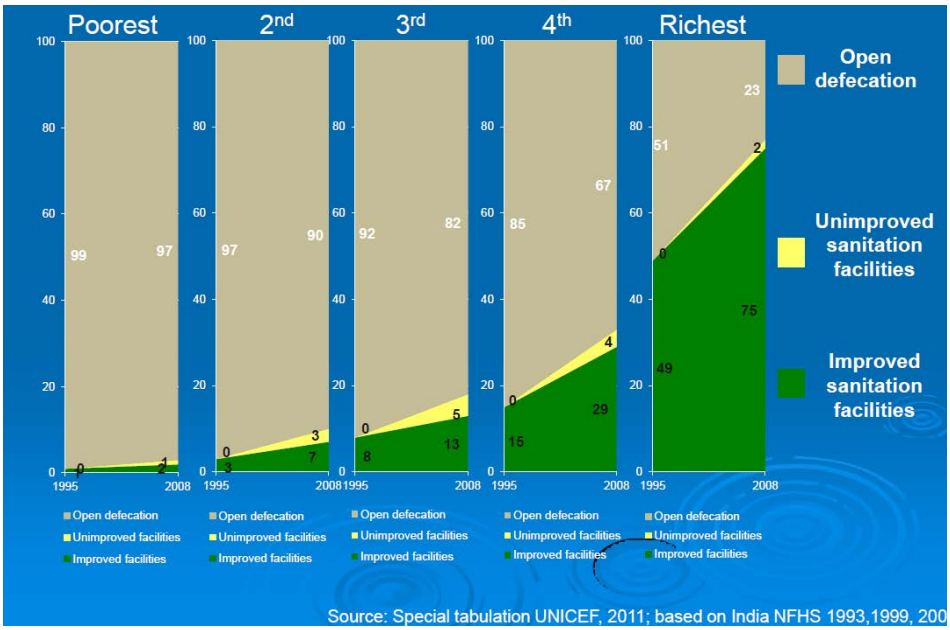

Figure 4: Rural sanitation coverage by wealth quintiles
(Luyendijk 2012)

The consequences of insanitation are significant, impeding dignity, education, health, livelihoods, and security. Diarrhoea due to poor sanitation and water kills 450,000 Indians yearly (Government of India 2011), mostly children. It affects also women, who face risk of sexual harassment or rape when defecating in the open. In addition, inadequate sanitation reduced India's gross domestic product by 6.4 percent ($53.8 billion) in 2006, according to a study (Tyagi, Hutton et al. 2010) of the World Banks's Water and Sanitation Program (WSP).

Related to the sanitation deficit is the problem of manual scavenging, the existence of at least 300.000 people engaged in or employed for manually carrying human excreta in 2009 (WaterAid 2009). This practice has its roots in the caste system of India; almost all scavengers are Dalits and most of them are women, forced into this practice from an early age and considered as untouchables. Manual scavenging increases the incidence of diseases of the scavengers and is considered to violate the fundamental right to earn and live a life with liberty and dignity. A century ago, Mahatma Gandhi called for the end of this practice, which was legally forbidden in 1993. However, in around 750.000 households human excreta are removed manually nowadays (Government of India 2012), as well as in some railway stations and public places (WaterAid 2009). Efforts to eradicate this practice have faced problems demand-supply cycle inertia, coupled with lack of alternative job opportunities for poor and illiterate women (Ganguly 2008).

2.3. Addressing the sanitation challenge, a bit of history

The oldest remains of sanitation networks, consisting of underground drains and cesspools, date as far back as to the Harappans, who inhabited the Indus basin in 2500 BC (Alok 2010). Nevertheless, among ancient civilisations it was the Romans who achieved a greater development of sanitation systems; they even had a sewer-Goddess called *Cloacina*, with a shrine over the *Cloaca Maxima*, the main sewer of Rome (Black, Fawcett 2008).

However, the first sanitary revolution –understood as a strong move towards making access to sanitation pervasive– happened only in the 19th century. It started in Britain in the 1850s, in a context of growing urbanization and collapsing markets of human waste as agricultural fertilizer. Deteriorating sanitary conditions, cholera outbreaks and especially the critical episode of the Great Stink of 1858 in London, unleashed what has been termed as a "public health engineering revolution" (Black, Fawcett 2008, p.16) that spread throughout Britain and then Europe and North America during the last decades of the century. A major shift in this revolution was the association of polluted water and diseases, which were regarded as air-borne diseases up until then.

But this revolution was confined to the industrialized world and did not successfully spread to the rest of the world, whose sanitary situation was anyway less critical. During the first half of the 20th century, sanitation was a low priority for colonial administrations and governments of newly independent states. Neither was it a relevant matter of major public campaigning. Some exceptions were the efforts of the Pan American Sanitary Bureau (PASB), the Health Organization of the League of Nations or the leadership of Mahatma Gandhi in sanitation, which he considered to be 'more important than independence' (WHO 2003, Black, Fawcett 2008).

The contemporary sanitary era, since the half of the past century, can be seen as comprising three periods, symbolically divided by the Mar de Plata conference in 1977 and the inclusion of sanitation in the Millennium Development Goals in 2002. The three periods are explained below, describing relevant events and actors, main sanitation programmes and ideas, progress achieved and lessons learnt.

The inception of the sanitation sector in development

With the start of development era and the creation of the United Nations, things started to change. Thus, in 1948 the World Health Organization's Expert Committee on Environmental Sanitation explored the relation of sanitation to health and the integration of environmental sanitation activities into national health programmes. In the 1950s, the first relevant international sanitation initiatives took place, with pilot rural sanitation projects in 27 developing countries, led by World Health Organisation (WHO) and UNICEF. But scaling up failed as host governments did not maintain and extend the pilot projects (WHO 2003).

In the **1960s**, international institutions were working for the eradication of world poverty through the transfer of technology and resources to developing countries. In the water and sanitation sector, this approach was translated into the financing and construction of new water supply and sewerage networks in urban settings (WHO 2003).

In the early **1970s**, the failure of these development models to meet the 'basic needs' had become evident (Black 1998); the industrialized world model could not be applied across the developing world, and population growth was outweighing progress rates. At the same time, ideas of community action and appropriateness of technology were being popularized. Sanitation NGOs and enthusiasts started introducing improvements to latrines in Asia and Africa and their work was later taken up by international organizations such as IDRC and UNICEF, giving birth to the pour-flush latrine with water seal and the Ventilated Improved Pit latrine (Black 1998). Further, public health –and thus water and sanitation– was gaining attention in the international community, to the point that in the 1977 UN Water Conference at Mar de Plata, 1981-1990 was declared the International Drinking Water Supply and Sanitation Decade, with 'Water and Sanitation for All' as its slogan.

The start of a new sanitary revolution?

The Mar de Plata conference initiated “a new era in international co-operation for improved water supplies and sanitation in the developing world” (Black 1998, p.4). In the International Drinking Water Supply and Sanitation Decade, developing countries committed themselves to trying to extend services to poorer urban and rural areas –with international assistance (Black 1998). Appropriate technological options were promoted and disseminated, despite the resistance of the engineering establishment in many countries. Most rural programmes consisted of building latrines in public places and households free of cost. However, while progress was significant in water during the **1980s**, it just kept pace with population expansion in sanitation. Those unserved by an appropriate means of excreta disposal remained almost the same globally, rising in several regions, like South-East Asia, with an increase of 66 million people (WHO 1992). However, the most important achievements were “in the realm of ideas” (Cairncross 1992, p.1), with valuable knowledge gains in low-cost latrine technology and changed perceptions of the roles of technology, engineers, communities, markets, governments and agencies. The need of better monitoring was also acknowledged, leading to the creation of the Joint Monitoring Programme for Water Supply and Sanitation (JMP) in 1990.

The lessons of the decade were analysed in 1990, when a Global Consultation on Safe Water and Sanitation was held in New Delhi. The 115 participant countries shifted the target for universal water and sanitation coverage to the end of the century. The ‘New Delhi Statement’ –endorsed by the UN General Assembly– also pled for equity, with the motto 'some for all, rather than more for some' (Black 1998). The 1992 World Summit on Sustainable Development also contributed to move sanitation up the political agenda of the world community –though to a limited extent. In the **1990s**, with the technological (hardware) challenges ‘solved’, the new mission was related to the ‘software’ components of sanitation: community education and participation, training, hygiene education and other non-technology aspects (UNICEF 1997). Past evidences had shown that approaches based on

toilet construction were not enough for sustained improvements in sanitation practices. These required that the people felt the need and demanded sanitation. The lack of demand was explained by the lack of understanding of the faecal perils (Black, Fawcett 2008). Thus many programmes introduced a hygiene education component, mainly concentrated on public health issues. Government's role was intended to change from that of provider to that of promoter and facilitator and communities had to participate in the process. The 1990s witnessed a flourishing of different sanitation software approaches like Hygiene Improvement Framework, Community Health Clubs, School Sanitation and Hygiene Education or Participatory Hygiene and Sanitation Transformation. The different approaches were applied in different parts of the world, leading to several success stories at different scales. As a whole, the 1990s witnessed less than 1% yearly progress in coverage. Investment was found to be inadequate and often misdirected (UNICEF 1997), despite the apparent unanimity around issues to be addressed and the appropriate policy responses (Black 1998). Demand driven approaches had gained space and were proving to be more successful than supply-led ones for extending sanitation, but the task still appeared to be extremely complex. No formula was found which could be applied in any setting and lessons from the different experiences were very contextual and difficult to scale up.

Sanitation in the new Millennium

The **2000s** faced two challenges: to increase the political priority of sanitation and to deepen on the understanding on how to generate demand for sanitation.

In 2002, the first achievement came regarding political priority. Two years after being marginalized from the Millennium Summit, sanitation was included in the Millennium Development Goals in the World Summit for Sustainable Development. The target set was to halve the number of people who do not have access to safe sanitation facilities by 2015. This has obliged made developing countries and international donors to take sanitation more seriously (Black, Fawcett 2008). Another major event was the UN declaration of 2008 as the International Year of Sanitation. For the first time, sanitation appeared decoupled from water. This had a reflection on international actors like DFID (UK's aid agency), who started giving more priority to sanitation. During these years, along with increasingly frequent global water encounters (including sanitation), several regional conferences on sanitation were held in different parts of the world. Finally, in 2010 and after several years of development, the United Nations General Assembly, through Resolution A/RES/64/292 declared sanitation –along with safe and clean drinking water– to be a human right essential to the full enjoyment of life and all other human rights (Stock 2011). This implies that States can no longer deny their responsibility to provide safe water and sanitation for all individuals.

Regarding how to generate demand for sanitation, the mainstream discourse had embraced the need of demand-driven sanitation programmes focusing on software at the end of the Millennium. In addition, it was slowly becoming clear that it was not enough to educate people about health benefits and encourage good hygienic practices. Human behaviour is considered to be culturally and socially

sensitive; practices that are firmly in place tend to remain (Shordt 2003) and new knowledge does not necessarily imply new behaviour (WSSCC 2010).

Thus innovations in software tried to find the existing social incentive for sanitation and address the emotional drivers or the specific psychological factors determining behaviour change, as compared to focusing only on the rational drivers and health issues.

The recently emerging 'psychological' trend advocates for systematically analysing the factors that facilitate or inhibit the desired behaviour, in order to design more evidence based, specifically targeted and locally adapted interventions. RANAS (Mosler 2012) , for instance, identifies five blocks of factors that must be positive with regard to the new behavior: risk factors, attitudinal factors, normative factors, ability factors, and self-regulation factors. Similarly, SaniFOAM focuses on behavioural determinants (Devine 2009), group under opportunity –whether people have the chance (e.g. access) to perform the behaviour–, ability –whether they are capable of performing it – and motivation – whether they want to perform it.

The 'emotional' trend is rooted in the idea that interventions that want to change behaviour should strive to be culturally compelling, not just culturally appropriate (Panter-Brick, Clarke et al. 2006). Consistent with this view, and coming from the participatory tradition, Community-Led Total Sanitation approach (CLTS) emerged in 2000 breaking off with past software approaches at several levels.

Strongly promoted by WSP, CLTS has become one of the most relevant contemporary approaches. Its radical critique of the focus on the household level, of teaching-oriented software and of subsidized sanitation has contributed to shape the recent evolution and debates in the sanitation sector. For instance, the public good dimension of sanitation –ill effects of open defecation remain until the whole village is sanitised– and the use of terms open-defecation free (ODF) or total sanitation have gained momentum. Debates aroused around the contradictions of subsidization and around how to address technical issues. Further issues –not necessarily related with CLTS– that started to gain acknowledgement during this period are the concerns around sustainability of the sanitation outcomes, the need of careful planning and implementation of the programmes and the importance of supply chains and of enabling policy environments (UNDP 2006).

In spite of the growing political priority of sanitation and increasing sophistication of the approaches to address it, the results were not encouraging. The pace of progress remained the same as in the previous decade and 2.5 billion people (37% of the population) were still without sanitation in 2010 (WHO, UNICEF 2012). At this rate, the world will miss the MDG sanitation target and it will take more than half a century to achieve universal sanitation.

The approaches that the international community has been using in the last years in order to change this dramatic drift are diverse. Some of those developed in the previous decade are still prevalent, some lost relevance or evolved into new ones, and recent innovations are gaining momentum. Those widely used nowadays are described in the next section.

2.4. Approaches in the rural sanitation sector

Framework for categorising sanitation approaches

In the previous section we have described the evolution of the sanitation sector, briefly including methodological trends and approaches used. In order to systematise these ideas and differentiate the interventions studied, it is important to have a framework against which to categorise the different approaches.

As a consequence of the evolution of the sector, there are two very distinct dimensions: technology or hardware and software or non-technological issues. A third dimension called programming has also been introduced in order to differentiate the planning or organisational issues from the 'pure' software, the aspects more directly linked to generating behaviour change.

The categorisation done by the WSSCC (2010), using these three dimensions, is probably the most widely referred to. However, it cannot be said that there is a clearly defined and universally accepted framework. In fact, systematisation of approaches is generally vague and different actors might consider dissimilar dimensions and aspects. Therefore, I here present my proposal of relevant aspects for categorising sanitation approaches focused on the household level. Inevitably, these ideas are inspired in the approaches I am more familiar with, so there might be some bias towards rural sanitation and community-led perspectives. Further, this categorisation is not thought of as a closed set of variables to be applied universally, but as a flexible tool for better understanding sanitation interventions.

The **programming** level encompasses five different aspects:

- Supply-led or demand-led: Which will be the driving force of sanitation? It could be construction targets set by the state or by an NGO (supply) or the felt need of a latrine expressed by the households or end users (demand).
- Top-down or bottom-up: How will be the programme implemented? The sanitation-related activities and timings can be dictated from the top down to the field, for instance if the government plans and executes the programme. Or it could be more bottom-up, with higher participation –in different degrees– of the communities.
- Outcome unit: The focus of the interventions can be on increasing household toilet coverage or on the collective, aiming to creating open defecation free villages (total sanitation).
- Subsidisation policy: The construction of household latrines could be subsidised or entirely funded by the households or communities (zero-subsidy policy). The subsidy can cover a certain percentage of the latrine cost or the total amount. It can take the form of cash, materials or labour. The timing of disbursement is also relevant, be it up-front or after

construction. The latter is generally termed as 'incentive' second case and can include further conditionality, for instance sustained latrine use or the achievement of ODF status in the community.

- Actors' roles: Who is expected to take part in the process? What roles will each actor play? Actors involved can include specific section of governments, private organisation and communities. As important as who is involved is the role of each of the actors in the different processes involved in the programme.

Regarding the **hardware**, the two main aspects are:

- Technology perspective: How are technological issues addressed? A technological fix might be promoted, a menu of latrine designs could be presented for the households to choose from, or greater freedom could be given.

- Type of technology: Which kind of latrine technology is subscribed? Multiple configurations are possible, depending on type of pan, type of pit, structure, materials, dimensions, etc. The most important variables would be the cost range (high or low cost) and the faeces disposal strategy, be it off-site, on-site dry or on-site pour-flush (Black, Fawcett 2008).

Five aspects are relevant to the **software** dimension:

- Perspective on behaviour change: A rational perspective could be taken, where knowledge of the ill-effects of insanitation and of the means to revert the situation is seen as the key for behaviour change. From a more psychological or emotional perspective, generating behaviour change primarily requires addressing the feelings and the less conscious determinants of behaviour.

- Principal triggers: Specific triggers can be used for the sanitation software, such as convenience or health. These can be either private –if it relates to the individual or household level, like time saving– or public –if it relates the collective, which does not depend on having toilet at the own household, but in all the area, like village pride. The trigger can be pre-determined or tailored to the specific area of the intervention.

- Nature of interactions: Interactions for changing behaviour can happen at all levels, from the household up to the mass media. Further, they can be unidirectional (speech, advertisements) or enable participation (workshop, door to door campaigning). In addition it can come from an outsider (regional authority) or from insiders (local committee).

- Relevance of software: Software can be a relatively small component of the programme or be the most relevant one, depending on the resources devoted and on whether it is a single specific activity or last for a longer period, including follow up.

A table summarising the dimensions and aspects that are relevant in sanitation approaches follows:

Dimension	Relevant aspects
Programming	P1: Supply-led or demand-led P2: Top-down or bottom-up P3: Outcome unit P4: Subsidisation policy P5: Actors' roles
Hardware	H1: Technology perspective H2: Type of technology
Software	S1: Perspective on behaviour change S2: Principal trigger S3: Nature of interaction S4: Relevance of software

Table 1: Dimensions of sanitation approaches

Mainstream approach to sanitation

Departing from the evolution described in the previous section, I here describe the current consensuses and debates in the sanitation sector, structured according to the categorisation presented.

Regarding **programming**, supply-led approaches are considered outdated nowadays, so sanitation programmes always endorse demand-led approaches (P1); it is the demand of the households for sanitation which will steer the process. Past top-down approaches are rarely advocated for nowadays, as action from below has proved to make a difference (UNDP 2006). Thus, more participatory, bottom-up approaches (P2) are now common (McConville 2008), where government and citizens share rights and responsibilities. The focus of the interventions is quickly shifting from the household level to the community level (P3) and currently, more and more approaches are aim primarily at creating ODF villages. Subsidy remains as the most controversial issue (P4). Zero-subsidy advocates argue that money discourages spontaneous construction and always ends up becoming the main driver of the intervention, weakening the focus on behaviour change. Others believe that without subsidy, the poorest won't be able to build proper toilets (UNDP 2006). In practice, sanitation campaigns can be found with plenty of configurations. Actors involved (P5) vary widely according to the setting and scale. Governments are always expected to take part in the sanitation programmes –maybe with the exception of fragile states or emergency situations– though with various degrees of leadership. Generally, big NGOs or international institutions are involved. With the mainstreaming of participatory approaches in the sector, local level actors are expected to be involved. This includes the local administration, local NGOs, as well as the community, either as a whole or through a specific part: schools, elected leaders, CBOs (women, clubs, and ad hoc committee). Some programmes also include the private sector as a relevant stakeholder, generally the retailers.

Concerning **hardware**, transfer of Western technology was left behind with the mainstreaming of the appropriate technologies in the 1980s and rural sanitation is nowadays based on on-site low-cost technologies using locally available materials, at least for household toilets (H2). The specific designs used vary according to local conditions and culture. Water-scarce areas generally adopt dry latrines like the VIP latrine, while pour-flush latrines with soak pits are popular in less dry areas. Septic tanks

and ecological sanitation, which considers waste as a potential resource (fertiliser), are less popular due to the higher investment required. Their use is generally limited to areas where it is culturally suited or where water table is high (Black, Fawcett 2008). Beyond the type of technology, different approaches have diverging stands on how to address these issues (H1) with the communities. Although many campaigns still use technological fixes, the mainstream discourse promotes end users' choice. Sanitation interventions should present the different technological options and facilitate the decision making process, so that households choose the technology that they feel suits best their context and financial situation. Other stances advocate for not addressing technological in issues in order to let the people innovate and come up with their own designs.

In relation to the **software**, the perspective on behaviour change (S1) is generally rational, based on information transmission for making people learn why should change their practice and how. But more and more people are arguing that behaviour change is not only dictated by knowledge, and propose a more psychological and emotional perspective. For instance, this can be done relating the triggers to people's experiences (health crises), speaking openly about shit in order to challenge the taboo around shit (Kar, Chambers 2008) or focusing on status and pride. The availability of latrines was discarded as a trigger with the abandonment of supply-led approaches. The most popular trigger (S2) ever since has been the health problems caused by unsanitary environments. With the acknowledgement of the gap between the perceptions of households and officers about the benefits of sanitation (UNDP 2006), other triggers like convenience, prestige, time saving, women's dignity or village pride are being incorporated in many campaigns. There is no clear preference between individual and collective triggers. The triggers are mostly pre-determined, although approaches like CLTS allow some flexibility during the interaction at the ground. A recent and still marginal trend is also proposing to systematically analyse behaviour determinants beforehand (Devine 2009). Regarding the interaction (S4), there is a lot of diversity, from mass unidirectional to local participatory, with many programmes using multiple ways of interaction. The relevance of software (S4) also varies widely among programmes, but it is becoming more and more important since the last decade, being understood as a continuous component of the programme.

Main approaches used

CLTS is said to have brought fresh air into the sanitation sector. In the next section, I thoroughly describe the approach, but I first here compare it with other common approaches, namely PHAST, Community Health Clubs, WASH in schools and Sanitation Marketing (WSSCC 2010). I use the aspects presented before in order to categorise these approaches and easily identify the differences. The approaches are considered software approaches and not necessarily take specific stands in hardware and programming.

PHAST (Participatory Hygiene and Sanitation Transformation) is a participatory learning methodology that seeks to help communities improve hygiene behaviours, reduce diarrhoeal disease and encourage effective community management of water and sanitation services. It involves specific participatory activities for community groups to discover for themselves the faecal-oral contamination routes of

disease. They then analyse their own hygiene behaviours in the light of this information and plan how to block the contamination routes (Simpson-Hebert, Sawyer et al. 1997). Participatory tools used comprise pictures depicting local situations, group analysis, pocket chart voting, etc. PHAST works on the premise that as communities gain awareness of their situation, they get empowered to develop and carry out their own plans to improve it.

PHAST was first used in 1993, promoted by the WSP, WHO and the World Bank. It has been widely used in several parts of Africa, especially in Zimbabwe. It has also led to the creation of CHAST, an revision of PHAST adapted to suit the needs of young children (WSSCC 2010).

Programming	P1: Demand-led P2: Bottom-up P3: Household P4: Unspecified P5: Extension worker facilitates process. Community is deeply involved
Hardware	H1: Designs discussed in group meetings H2: Unspecified
Software	S1: Rational S2: Health S3: Local with participatory tools S4: Software main component. Long term process

Table 2: Dimensions of PHAST

Community Health Clubs (CHC) are community-based organizations formed to provide a forum to promote a culture of health. Their main activity is holding meetings to learn about and discuss ways to improve household and community hygiene. Men and women of all ages, income and educational levels (40 to 200 people) join in regular sessions with a registered membership, facilitated by trained government health extension workers or trained facilitators from the community. Each session encourages active participation from all members and requires members to practice their new learning at home through weekly recommended practices, which can include covering stored water, using a ladle or building latrines, for instance. When a critical mass of households participates in CHC, private behaviour becomes a public concern, resulting in changes to community norms and values associated with WASH practices (Achiro 2008). Membership cards and attendance certificates reinforce the sense of identity and the social status, which become an incentive for members to participate.

CHC, pioneered by the Zimbabwean NGO AHEAD in 1994, has been used in several countries of Africa.

Programming	P1: Demand-led P2: Bottom-up P3: Household, but aiming to extend to the collective P4: Unspecified P5: Community is deeply involved
Hardware	H1: Unspecified H2: Unspecified
Software	S1: Mixed S2: Health and group membership S3: Local through meetings S4: Software main component. Long term process

Table 3: Dimensions of CHC

WASH (Water, Sanitation and Hygiene) **in schools**, originally called School Sanitation and Hygiene Education, is based on the belief that children are far more receptive to new ideas and to adopt good personal hygiene practices (Mooijman, Snel et al. 2010). It focuses on providing school children with an effective and healthy learning environment and changing their hygiene behaviour. Through them, the community at large will be reached. WASH in schools deals with hardware and the software aspects, that is both with the sanitary facilities in and around the school and with the activities aiming to promote the conditions and practices of school staff and children that help to prevent water and sanitation-related diseases. Interventions vary depending on the situation, but usually involve training activities (for teachers, community and parents' groups), participatory workshop to decide on technology, designs and payments, classroom teaching, construction of water and sanitation facilities, maintenance and monitoring (WSSCC 2010).

International Resource Centre on water supply, sanitation and hygiene (IRC), UNICEF and WHO are at the origin of this approach, in 1998. It has been used in different countries all over the world.

Programming	P1: Mixed for schools, demand-led for households P2: Mixed for schools, bottom-up for households P3: School, but aiming to extend to the collective P4: School facilities subsidised, unspecified for households P5: School staff main actor of the campaign, along with the children and their families
Hardware	H1: Parents and teachers can participate in the design at school, unspecified for households H2: Unspecified
Software	S1: Rational S2: Health S3: Local through meetings S4: Software main component. Long term process.

Table 4: Dimensions of Wash in schools

Sanitation Marketing (SM) is based on the belief that sanitation interventions will be sustainable only when people pay for it and get what they really want. It consists on the use of commercial marketing techniques for promoting sanitation. Market research is the first step, essential for understanding what products people desire and how much they're willing to pay for them (Water and Sanitation Program 2012). Then, these products have to be made or found in the market, and the supply networks supported so that the facilities are readily available at an affordable price in the right place. At the same time, the sanitary behaviours and products have to be promoted through communications campaigns, which can include various channels like advertising in the media, demonstrations, counselling, etc. For instance, SaniMarts are small shops set up in accessible markets where materials for constructing latrines can be purchased at affordable prices. Apart from an initial input of stock, SaniMarts programmes can include trainings for sanitation promoters or masons.

The SaniMarts have been used especially in South Asia.

Programming	P1: Demand-led P2: Bottom-up P3: Household P4: No subsidies P5: The private sector in leading role
Hardware	H1: Offer menu of market-researched designs for households to choose H2: Unspecified
Software	S1: Emotional S2: Various, determined in market research S3: Extensive promotion tools S4: Software and hardware balanced. Medium term process

Table 5: Dimensions of Sanitation Marketing

CLTS (Community-Led Total Sanitation) aims to stop all open defecation (OD) within a community, recognising that individual hygiene behaviour can affect the health of other community members. The approach encourages innovation and commitment within the community, motivating them to build their own sanitation infrastructure with their own resources and ideas (WSSCC 2010). In a participatory session, community members analyse their own sanitation profile including the map of the defecation areas, the amount of shit left in the open and how this detrimentally affects everyone. Thus awareness of the health risks is raised and a sense of disgust, shock and shame emerges. If this triggers a collective desire to take action and improve sanitation within the community, an action plan is prepared for making the community open defecation free (ODF). The implementation of the plan will be led by the community, with support of the facilitator if needed (Kar, Chambers 2008).

The approach was created in 1999 is now widely used in Asia and Africa. Due to its relevance for this research and for the sanitation sector, its history and detailed process is described in the next section.

Programming	P1: Demand-led P2: Bottom-up P3: Collective P4: No external subsidy P5: Outsider initially facilitates, then community leads (Natural Leaders)
Hardware	H1: A priori technical support should be avoided H2: Low-cost latrines are well considered for initial steps
Software	S1: Emotional S2: Health and disgust S3: Local through a participatory triggering session S4: Software main component. Short initial triggering and medium term follow up

Table 6: Dimensions of CLTS

Some argue that each approach is best suited for a specific context or situation (WSSCC 2010) while advocates from one approach tend to consider it overall more effective than the rest. At the end, the boundaries among the different approaches are many times difficult to set. Different actors use, combine, adopt or modify the approaches. For example WSP uses Total Sanitation and Sanitation Marketing, which combines CLTS with Sanitation Marketing. Plan India uses the SCOTS approach, similar to CLTS but with subsidy. UNICEF uses the term Community Approaches to Total Sanitation, which comprises various approaches inspired in the concept of Total Sanitation (ODF), with variations like the use of subsidy or the focus on the school instead of the community. The last is also called School-led Total Sanitation (SLTS) and could be seen as a combination of CLTS and Wash in Schools.

Anyway, comparing the 'pure' approaches, CLTS main **novelty** lays on the collective as outcome unit. The zero-subsidy policy, the quick transition towards community leadership and the avoiding of a priori technical support are further differences to previous approaches. Other aspects are present in previous approaches, too, but probably the originality of CLTS is to bring them together in one approach. In the next sections, I dig into these issues, thoroughly describing the CLTS approach, as well as the challenges and criticisms it faces.

2.5. The CLTS approach

The trajectory of CLTS

As I described in the previous sections, the new millennium saw an innovative approach, inspired in the participatory tradition, burst onto the sanitation sector: the Community-Led Total Sanitation (CLTS) approach. CLTS was pioneered in Bangladesh in 2000 by Village Education Resource Centre (VERC) and WaterAid Bangladesh with the support of the development consultant Kamal Kar. Whilst evaluating a traditionally subsidised sanitation programme, Kar's team realised conventional sanitation interventions were missing the point. Agencies, NGOs or donors were focusing on training villagers on good hygiene practices and disbursing subsidies in order to motive them to construct toilets from amongst prescribed models. Success was measured on the basis of the number of latrines constructed. In the case of the area they were studying, this had resulted in construction of latrines in some areas of the targeted villages, but open defecation remained rampant. In addition, new toilets belonged mostly to better-off families (Kar, Pasteur 2005).

The team saw that the household-focused and subsidy-driven programme was ineffective for making villages open defecation free (ODF); the landless were excluded because they had no land for toilets and poor families couldn't afford the expensive models offered, even if subsidised. But they further realised that subsidising latrines was counterproductive: "some of those who were better off waited to see if they could get the subsidy instead of going ahead and constructing toilets of their own" (Kar, Pasteur 2005, p. 26).

A shift was needed from the outsider motivated external subsidy-oriented toilet construction that overlooked to the inherent potential of communities, their collective strengths and indigenous knowledge (Kar 2011). Instead, the "total sanitation of the village by catalysed participation and self-mobilisation" (Kar, Pasteur 2005, p. 26) should be pursued. Thus, they proposed an approach without subsidy and based on facilitation to catalyse community self-help: Community-Led Total Sanitation.

After a first successful experience in a small village, both Bangladeshi and international NGOs adopted the approach, and more than 400 villages (15.000 families) had stopped OD by 2003 (Kar, Pasteur 2005). The Water and Sanitation Program of the World Bank, Plan International, WaterAid and UNICEF

enabled a continuous spread of CLTS around the world, first in Asia and since 2007 in Africa. Nowadays CLTS experiences can be found in more than 40 countries (Kar, Chambers 2008).

The CLTS vision

CLTS is rooted in the Participatory Rural Appraisal tradition and shares their motto: 'they can do it'. Translated to sanitation, it implies that once people are convinced about the need for sanitation, they are able to construct their own latrines and take action to make their environment ODF. The best way for the communities to get convinced is to analyse their sanitary situation. As shit is a taboo in most cultures, this appraisal of the sanitary conditions needs to be facilitated in a participatory manner, and without much consideration of using correct language (Kar, Chambers 2008). The facilitation aims to put a 'sanitary mirror' that will enable the community to see the unsanitary conditions they live in, realise that they are eating each other's shit and help them internalise the consequences of open defecation on their health and dignity. This causes an upsurge of various emotions, including shame, embarrassment and disgust (Mehta 2011) and can trigger a strong desire to change the situation, propelling the community into collective action. From then on, the process unrolls with the leadership of Natural Leaders from the community, with facilitators in a non-intrusive supportive roll. People build latrines according to their possibilities (without subsidy). If very basic latrines (e.g. dry latrines) stop working after some time, people will upgrade them. Once the collective dimension of sanitation is acknowledged, those better-off are eager to help the poorest build their latrines. There is also peer pressure to stop defecating in the open. Thus, the community will have ownership over the process and find their way to achieve ODF status and entrenched sanitary behaviour change.

Although debates remain about the **core principles** of the approach, the following four could synthesise the orthodox perspective (Chambers 2009):

Focus on the collective: CLTS has a public good perspective of sanitation. Until open defecation is fully eradicated, its ill effects will affect the whole community. Instead of counting toilets (coverage), ODF communities are the measure of success.

No subsidy: No individual household subsidies should be used. Communities install their own latrines or toilets with their own resources. Those who are better-off help those who are too weak or poor to help themselves. This does not exempt government or agencies from financially and institutionally supporting sanitation interventions.

Facilitation, not teaching: Teaching or preaching about sanitation does not work. Instead hands-off triggering facilitates the communities to confront their sanitary reality and conduct their own analysis of open defecation. Similarly, no standardised top-down designs are prescribed, but people innovate and decide for themselves, thus avoiding problems of affordability.

Community self-help action: The community is the one who leads the process, and no external pressure is made in order to put them into action. Once ignited, information and encouragement can be provided.

CLTS methodology

Founded in this vision and principles, CLTS proposes a methodology to facilitate the process towards ODF, with the epicentre in the so-called 'triggering'. The triggering is a participatory session where a team of facilitators helps the community analyse its sanitary situation, with the aim of triggering a desire to take action and change it.

Before that session, in the **pre-triggering** period, one or two preliminary visits to the community are needed, in order to find the suitable place, day and time for meeting. Facilitators also have to explain who they are and insist on the need that people from all sections of the community take part in the triggering session. Knowledge will also be gained of the history and context of the community, which is useful to pre-assess how challenging the triggering will be. For example, villages are considered favourable if small, remote, socially homogeneous, with progressive leadership, tradition of self-help and active groups within the community. Other favourable characteristics are the lack of covered areas for defecation, rampant OD generating smell, high incidence of diarrhoea and absence of past subsidised sanitation programmes. The idea is to start with the most favourable conditions, and move to more challenging ones once experience is higher (Kar, Chambers 2008, Chambers 2009).

For the **triggering**, the facilitation team has several methodological tools from which they can choose a combination that suits the audience and the development of the session (Kar, Chambers 2008).

One of the most popular starters is the transect walk. It involves walking with community members through the village from one side to the other. The facilitation team stops in the areas of open defecation and the unhygienic latrines along the way, asking questions like: 'whose shit is this?', 'who defecated in the open this morning?'. The disgust and embarrassment experienced by the community during this 'walk of disgust' is very powerful to generate a desire to stop open defecation.

Once the community has gathered in the venue of the session (generally an open and neutral space), a mapping of defecation areas can be done. The team proposes the community to make a simple map on the ground. All community members participate in locating their households (e.g. with beans), defecation areas (e.g. with coloured powder), water points, etc. With this visual exercise, the team can stimulate discussion around important problems: How far do they have to walk to defecate? At what time? Is it dangerous? Are there any risks of contamination of ponds and other water bodies due to open defecation?

Then, calculations can be made collectively in order to estimate the tons of shit that are being disseminated around the area every year. Similarly, medical expenses due to diarrhoea can be calculated. Pathways of faecal contamination can be explored, too.

Another popular tool is the glass of water. The team offers a glass of drinking water to someone. Then, the facilitator fills the glass again, pulls a hair from his head, touches some shit with it and dips it in the water. The glass is offered again, asking why they refuse it if water is still transparent! Analogies can be established with flies that sit on the food they eat. An alternative to this tool is to place a bowl of rice near a shit so that flies start moving from one to the other.

At some point of the session, the **ignition moment** will arrive; there will be a collective realisation that they are ingesting each other's shit and that this will continue until open defecation goes on. Often, strong arguments begin as to how to stop this situation. At this point, the facilitators just listen. The community then generally asks what to do. Facilitators have to answer that, as outsiders, they have little local knowledge; the villagers know much better how to change the situation and have the power to do so.

The reaction of the community will vary widely, depending on the power of the ignition, and the team will react according.

Where desire to take collective action has not been fully ignited, some possible actions are: thanking them for the detailed analysis and seeking their permission to leave, remembering that the team is not a latrine promotion team; asking how many of them are going to defecate in the open the next morning; identifying anyone who wants to take action; fixing an early date to return when others who may not be present can participate in a further round of triggering; leaving with them vials to test for water contamination, etc.

Even where ignition is successful, obstacles such as the high cost of latrines are commonly raised. The facilitator can tell them about low cost latrine models constructed elsewhere (but underlining that he is not making any prescription) and share experiences of other communities who have taken up total sanitation and have achieved success. If they decide to stop open defecation, they should look for their own alternatives to open defecation.

If they are completely resolved to change their sanitary situation, the team can facilitate the formation of community committee to carry out this task. An action plan with dates for completion can be set up. Also, a mutually convenient date for a follow-up visit can be set.

Even if a community has decided to take action, sensitive support and encouragement will be needed. The **post-triggering** phase can last between 3 weeks and a few months. Facilitators should accompany the community, but keeping a secondary role.

Natural leaders emerging from the triggering process can be identified and encouraged to take an active role in the committees. These Natural Leaders may be women, men, youth, school children, elderly people, religious leaders, village headmen and others. Their role is crucial for the success and spread of CLTS.

Help for weaker and poorer members of the community might also need encouragement. Better-off members of the community might offer support to poorer members of the community, as they want to achieve ODF status.

In some cases, lack of low-cost hardware can impede upgrading the latrines. Support will be needed for establishing linkages with local markets.

Once open defecation free status is achieved, it has to be verified, certified and celebrated. Thus, official recognition is given to the effort of the community, both increasing their sense of pride and

awakening interest among nearby villages. Sustainability has to be monitored, too, preferably by the community itself, indicating where further facilitation may be needed (Kar, Chambers 2008).

Often, prompted by the enthusiasm and confidence generated throughout the process, communities get empowered and go **beyond ODF** taking collective action for cleaning the streets, clogged drains or marketplaces (Kar 2011).

Challenges and critiques

Although it is difficult to give exact numbers, CLTS is considered to have had a big impact (Movik, Mehta 2009, Mehta 2011), with an estimated of 15 million people to be living in communities that have been declared ODF with reasonable credibility (Lukenya Workshop 2011). There are evidences of large-scale achievements in many countries of Asia and Africa, where it has been successful in igniting a collective decision to stop open defecation in many communities, transforming people's perceptions and practices of sanitation (Chambers 2009). According to Mehta, "there is no doubt that CLTS achieves results quicker than conventional approaches due to its insistence on collective behaviour change" (Mehta 2011, p.4).

But research has also revealed that claims of success have been exaggerated; many times some households –especially the least able– do not built latrines and thus villages do **not achieve ODF status** (Chambers 2009, Mehta 2011). But probably a major concern in CLTS is **sustainability**: villages that actually became ODF, often were not able to remain so for long (Mehta 2011, Movik 2008, WaterAid 2009, Kumar, Shukla 2011).

Reversion to open defecation has been related to different **factors**.

Physical factors generally include walls of the pit collapsing; general collapse with flooding, seasonally high water table or rains; damages to the superstructure; and pit filling up (Chambers 2009). When these happen, families can share with others, move up sanitation ladder or revert to open defecation. The last option is taken when the new behaviour is not sufficiently entrenched, but constraints such as lack of resources, problems for emptying pits or building new ones, lack of market supply of hardware also play a role (Hanchett, Krieger et al. 2011, Chambers 2009).

There are also preference factors, when the inconvenience or obstacles of the new practice undermine the decision to change the habit. This can happen with smelly and unpleasant latrines (e.g. with simple dry latrines), when fetching water requires big efforts or when people just prefer to stick to their previous behaviour (Chambers 2009, Mehta 2011).

Social factors relate to tensions over sharing latrines, including reluctance because of the speed of filling up of the pit, taboos over joint use of latrines by certain family members and gradual weakening of community pressure for not defecating openly (Kumar, Shukla 2011, WaterAid 2009).

These problems challenge the core underlying assumption in CLTS: a successful triggering process has the power to ignite collective behaviour change to an extent that communities will overcome the obstacles in their swift way towards open defecation (WaterAid 2009, Mehta 2011).

The assumption can be broken down in several second order assumptions. I present these **assumptions** now, with their methodological consequences, the risks they entail and the **criticisms** and suggestions of changes they have sparked off:

- Spontaneous Natural Leaders will emerge from the community, lead the process and help galvanize energy in achieving ODF. Facilitator's should be alert to identify and encourage them. However, Natural Leaders might lack the capacities to take the lead and thus need more support or training (InterAide, Engineers Without Borders Canada 2012).

- Those better off will help the least able to build latrines, as they are united around a common cause. Therefore, facilitators just need to encourage this. This has been criticized for being founded in a naïf and idealised notion of the community, not taking power relations and social divides sufficiently into account (Mehta 2011). To ensure equity, IRC has proposed to include the identification and mapping of the poorest household as explicit steps in the approach, along with the planning and monitoring of their progress (IRC 2008). Others have argued for a more nuanced and flexible stand about individual household subsidies (Pattanayak, Yang et al. 2009).

- The community has the knowledge and the creativity to design their own latrines, adapted to their circumstances. Accordingly, facilitators should avoid prescribing toilet designs. However, there is a risk of construction of toilets that are not adapted to the specific setting. As a result, they could collapse and require moving up the ladder too early, contaminate the groundwater or be ill suited to the specific needs of women, children or disabled people. This has led different practitioners to advocate for a revision of the role of technical advice in CLTS (Papafilippou, Templeton et al. 2011).

- Momentum created in the triggering and peer pressure to avoid open defecation will last until the new habit becomes entrenched and people move up sanitation ladder. Hence, after triggering, the facilitators have to shift to a secondary and fading role based on follow up visits. However, many times only a relatively small part of the community takes part in the triggering session. In addition, the result of the triggering won't always be full ignition. Apart from that, many challenges might emerge during the process, including opposition within the community, water scarcity or technical problems, demanding closer attention. Claims have been made to reframe CLTS as a long journey, and increase the attention paid –and resources devoted– to the post-triggering stage (Joshi 2011).

- Communities will move up the sanitation ladder when their first low cost latrines collapse or the pits fill, as habit of latrine use will be entrenched. The intervention generally won't span until that point of time, so the community has to monitor this process without external support. The frequent relapse into open defecation pointed out earlier puts this vision into

question. Practitioners have sought for alternatives. In Indonesia, for instance, local community monitoring was linked to monitoring systems with periodic sample verification checks at the sub-district and district level (IRC 2008).

Another criticism to CLTS is that it assumes sanitation is always a priority, overlooking that this might not be the case where there are specific conditions regarding the population distribution patterns, environment and social practices. This insensitiveness can lead to not listening to the community during the triggering process and turn a participatory methodology into an externally induced and driven process (Musyoki 2007).

Further questionings to CLTS relate to the overemphasis on the 100% elimination of open defecation (Howes, Huda et al. 2011), the low attention paid to handwashing, the use of negative emotions like shame for triggering behaviour change and overlooking interactions with the environment, such as groundwater pollution (Movik 2008).

There is also a general critique, related more to the way CLTS is presented or advocated for than to the approach itself. Many times CLTS is promoted as if it would be a silver bullet, and previous or alternative sanitation approaches are dismissed (Musyoki 2007). The problems or challenges of CLTS are not due to shortcomings of the approach; instead they are generally attributed to external factors such as the mindset of the decision makers, policy environment (e.g. subsidies, pressure to disburse) or lack of skills of facilitators (Joshi 2011). The promise of a sanitary revolution can inflate expectations, foster exaggeration of success, hinder critical reflection and learning and undermine its impact into the long term.

These challenges and critiques will be borne in mind and revisited after gathering evidences from the field.

Scaling up

CLTS started as a local experiment in the NGO sector. As it was showing good results, efforts were made to expand its range and to institutionalize it –what has been termed to scale it up. Thanks to the involvement of several NGOs and international agencies, CLTS was rapidly introduced in several countries, with WSP playing a key role in Asia, and UNICEF and Plan in Africa (Kar, Milward 2011).

The strategies and practices for taking CLTS to scale in the different countries differ (Chambers 2009), but an approximation to the process could be as follows.

The process starts either with exposure visits to other countries or with hands-on training workshops by Kamal Kar, where trainers, practitioners, advisers, senior officers of Government and field extension staff are trained in CLTS, including field work practice. Kar conducted at least 65 such hands-on training workshops in 15 countries between 2000 and 2007 (Kar, Chambers 2008), and has continued at a higher rate in past years. The trainings expose sanitation decision makers from NGOs and government to the potential of CLTS (Kar, Milward 2011, Mehta 2011). These decision makers can potentially

become CLTS champions. Then, further trainings are organized in order to develop a critical mass of trainers that can spread the approach. Collaborations are established with champions in order to pilot CLTS at some scale and showcase the effectiveness of the approach for making sanitation happen. After that, CLTS can go to bigger scale and become part of the national policy.

While NGOs are often prominent in the stage of piloting CLTS, Governments are the main actors in going to scale (Lukenya Workshop 2011). In Bangladesh, spread has been led by NGOs (Plan, WaterAid, Dishari), often in collaboration with local Governments. In Indonesia, CLTS was introduced through WSP and quickly became a state driven process. It has been mainstreamed in the national strategy for rural sanitation, in combination with sanitation marketing. In Pakistan, CLTS work has been supported by UNICEF and led by the NGO Integrated Regional Support Programme in Mardan. Natural Leaders played a key role in scaling up. In Kenya, the process has been through partnership between NGOs and the Ministry of Public Health and Sanitation, with Plan Kenya playing a key role in advocacy, training and learning. In India, CLTS was introduced by WSP and efforts have been driven by local government officials, with no support from the national level and little involvement of NGOs (Chambers 2009, Deak 2008, Joshi 2011), as I explain in greater detail in the next section.

In general, going to scale faces difficulties (Rosensweig, Perez et al. 2012) and entails risks, especially if rapidly. The quality of the successful process that is to be taken to scale can be compromised. This is also the case for CLTS, and a lot has been written on the **challenges** faced in different settings (Chambers 2009, Joshi 2011, Lukenya Workshop 2011, Kar, Milward 2011, Deak 2008). The four more relevant ones – opposition, mixed approach, quality of triggering and over-reporting– are succinctly summarized here:

CLTS bottom-up, empowering and no subsidy policy perspective always generates **opposition** at some levels. Four relevant sources of this opposition are vested interests in subsidies distribution, pressures to disburse large budgets, inertia of technocratic (sanitation) policy implementation and scepticism about the usefulness of the approach. As a consequence, CLTS relies on champions in different institutions –and at different levels and stages of the process– in order to be scaled up. Their power within the institution, their incentive systems and the post transfers become key elements of the process. It is therefore important for CLTS to find, support and multiply champions.

Many times, as a result of the tensions cited, a **mixed approach** is adopted, either to accommodate the different forces or to adapt the approach to the local context. However this mixing involves some risks, and depending on the kind of change, contradictions might arise and weaken the methodology, for instance when subsidies are included or technologies prescribed.

The CLTS approach depends heavily on the **quality of the triggering** process at the local level. Scaling up can pose a challenge to this quality, as developing a critical mass of skilled and devoted facilitators is not an easy task. It requires finding eligible people, organizing good trainings, enabling them to devote themselves to CLTS and keeping their motivation and commitment levels over long periods of time.

Generally when scaling up, targets are set up by governments in order to monitor and evaluate the process. Due to the need to show results, there has been a tendency to **over-report** achievements. This issue, which is not exclusive to CLTS, distorts the reality and impedes taking adequate policy decisions. Verification systems need to be well planned and definitions of ODF clarified.

When analysing the experiences selected for this research, the challenges to scaling up outlined here will be born in mind. But first, there is a need to have a closer look at how sanitation plays out in India and particularise the challenges to that setting.

2.6. The case of India

In order to understand sanitation in India, it is important to understand its context first. In section 2 of this chapter, I have already presented how the global sanitation crisis is especially serious in India. In this section, I start with the broader context of the country, and in the following subsections, I describe the efforts of the country to solve this crisis, including the recent initiatives to introduce CLTS and the challenges faced.

The country context

Historically, the Indian subcontinent hosted ancient civilizations since 5 millenniums ago, was home to historic trade routes and was cradle of 4 major religions. Under British control or rule since the end of the 18th century, India became an independent nation in 1947 after a struggle for independence marked by non-violent resistance led by Mahatma Gandhi. With independence came the partition along religious-majority lines, and today's India and Pakistan and Bangladesh split. With its new Constitution, India became a democratic and secular republic in 1950. Since then, India has had to face religious violence, casteism, terrorism and rapid urbanization, maintaining however its multi-party governing system. The still unresolved territorial disputes with China and Pakistan resulted in several wars.

During its first decades, India was a developmentalist planned economy. The Planning Commission led the modernisation of the nation through successive Five-Year Plans. Thus, the country developed its industry, water resources and agriculture. In the 1991, economic liberalisation transformed India into one of the fastest-growing economies in the world (Encyclopaedia Britannica 2012).

Nowadays, India is a pluralistic, multilingual, multireligious and multiethnic society with over 1.2 billion people. Endowed with enormous natural resources it is considered the world's tenth-largest economy and also has the second largest pool of technical and scientific personnel in the world (Government of India 2002).

Figure 5: Map of India
(Wikimedia Commons 2012)

However, India faces many **challenges**. It has a Human Development Index of 0.547 in 2011, ranking 134 in the world (UNDP 2012), with millions of people living in deprivation. There are significant disparities between the different Indian states and between rural and urban India. Inequality is also high among gender, cast, religious and income level divisions.

In relation to gender, India ranks 129 out of 146 countries covered by the Gender Inequality Index (UNDP 2012) and was recently elected as the worst place to be a woman out of all the G20 countries. The patriarchal society still prevails in many areas, where child marriage, girls abortion and domestic slave labour are still happening. Despite progressive law, figures of maternal deaths, domestic violence, dowry-related crimes and rape are very high (Pidd 2012).

Regarding caste, it is a system which stratified society into thousands of endogamous hereditary communities that is still prevalent in many facets of Indian life, such as marriages. It affects especially the so-called untouchables (Dalit), considered the lowest rank in the system. Although untouchability was outlawed in 1950, social practices are still bond to the caste system at many levels in many parts on India, especially in rural areas.

Politically, India is a federal system, consisting of 28 states and 7 union territories. Each state has elected legislatures and governments and is divided into 3 hierarchical administrative levels: Districts, Blocks and Gram Panchayats. A Gram Panchayat (GP) can comprise a single village or several. The 73 rd Constitutional amendment in 1993 provided constitutional status to the Panchayati Raj Institutions,

and at each level, Panchayat elections are held every 5 years. Thus, it is a decentralised governing system, with different powers and responsibilities, like planning, implementation of schemes, tax collection, etc. The Government of India (GoI) has several ways of fighting the country's challenges:

For instance, in order to level the opportunities among the different communities, there is a reservation system. Lowest castes (Dalits and Shudras) are grouped under Scheduled Castes and certain economically backward castes under Other Backward Castes. Indigenous groups are considered Scheduled Tribes, while the rest belong to General Castes. The reservation system establishes quotas for representative bodies, administration, schools, etc., especially for Scheduled Castes and Scheduled Tribes. This affirmative action has also been extended to women (Encyclopaedia Britannica 2012)-

There are also many **welfare schemes and programmes** to support the poorest households, principally those below the poverty line (BPL). These include the distribution of subsidised food, fuels and fertilisers, housing schemes and the MNREGA, a scheme that guarantees 100 days employment to the rural poor. This has however led to some extent to a paternalistic inertia, where the poor are seen as mere passive beneficiaries of the state schemes (Hebbar 2010).

In addition, there is widespread **corruption** plaguing these schemes, as well as other government activities, with India ranking 94 according to the transparency index (Transparency International 2012). For instance, one-third of BPL households pay bribes to avail the public services they are entitled to, and 40% of Indians have had first-hand experience of paying bribes or using contacts to get something done in public office (Transparency International India 2008).

Related to this is also the practice electoral clientelism or **political patronage**, which has increased in the past decades with decentralisation (Sadanandan 2012) and the rise of more personalized politics (Chaplin 2011). It consists of distributing government resources and public goods for electoral gains, be it rewarding supporters afterwards or 'encouraging' voters beforehand.

India's sanitation history

Pre-independence sanitation interventions under British rule were limited to specific urban areas, but since 1930s, social movements against untouchability inspired by Ghandi started to address the sanitation problems of the country (Alok 2010).

After **independence** in 1950, sanitation appeared in the First Five-Year Plan (1951-1956), although it was just mentioned in the section on water supply and did not get any relevant investment. This situation continued during the following four planning periods (Government of India 2011). It was only in the Sixth Five-Year Plan (1980-85), at the time when the International Drinking Water Supply and Sanitation Decade was launched, that India substantially increased its commitment to sanitation, though still devoting little attention to it, if compared to water supply (World Bank 1999). In 1983, the World Bank, along with the Government of India (GoI), UNICEF and UNDP, formed a Technical Advisory Group, which supported a variety of studies and demonstration projects around sanitation (UNICEF 2002).

With the recommendations of the group, GoI initiated the **Centrally Sponsored Rural Sanitation Programme** (CRSP) in 1986. The programme focused on the construction of locally built twin-pit pour flush latrines at the household level, using household subsidies. During the 13 years of CRSP, more than Rs. 660 crore (approximately US$400 million) were invested, but rural sanitation coverage grew only at 1 percent annually (Government of India 2011). Nonetheless, sanitation had developed its own identity and gained weight in central and state governments' agendas. During that period, several shifts occurred. For one thing, the 'single hardware' perspective was abandoned and a variety of latrine designs (including low-cost ones) started to be promoted (UNICEF 2002). For another thing, it had also been acknowledged that a supply driven programme without linkages to education and health might lead to toilet construction but not to toilet use. Finally, the 73rd Constitutional amendment in 1993 had contributed to increase the awareness that decentralised people centric approaches would be more effective (Government of India 2002). Heir of this transition were several pilot projects, like the Intensive Sanitation Project supported by UNICEF and implemented by the Ramakrishna Mission Lokashiksha Parishad, which showcased that another kind of sanitation campaign was possible (Alok 2010).

As a consequence, in 1999, GoI restructured the CRSP and launched the Total Sanitation Campaign, which is the national policy in force during the experiences researched. It is thus described in greater detail the following subsections.

The Total Sanitation Campaign guidelines

With the Total Sanitation Campaign (TSC), the policy moved "towards a demand driven approach (...) [that] emphasizes more on Information, Education and Communication (IEC) activities to increase awareness (...) with focus on community-led and people centred initiatives" (Government of India 2001, p.4). It also introduced a component on school sanitation and provided for the promotion of a range of toilet options to promote increased affordability, as well as for the involvement of Women Groups, Self Help Groups and NGOs (Government of India 2001). It also included later activities for Solid and Liquid Waste Management.

Sanitation moved to a low subsidy regime, which was finally replaced with a post-construction incentive to below-poverty line (BPL) households in 2004 (Government of India 2004). This incentive was initially of Rs.1200 per individual household latrine, but increased to Rs.2200 in 2007 (WaterAid 2008).

Along with the trends at the international sanitation sector, the 'public good' dimension of sanitation was recognized in 2003 and the concept of total sanitation (the entire community has to be ODF) was embraced: The Nirmal Gram Puraskar was introduced, an award scheme that incentivises the achievement of total sanitation, giving cash prizes to ODF Gram Panchayats in ceremonies with high level authorities (Government of India 2011). The awards gained immense popularity and boosted the political priority of sanitation at many levels.

The TSC implementation unit was the district. State Governments prepared 4-year district projects and transmitted them to the Department of Drinking Water Supply (DDWS), at GoI's Ministry of Rural Development. According to the guidelines, implementation was structured in **phases**:

- Start-up and Information, Education and Communication (IEC), getting up to 15% of the funds (Government of India 2007). IEC was the key for a demand-led TSC and included pamphlets, posters, wall writing, films, folk media, etc. These typically carried messages about bad consequences of poor sanitation and benefits of safe sanitation (Kumar, Shukla 2011).
- The physical implementation, covering individual household latrines, community toilets and institutional toilets, entailed approximately 75% of the funds. At the household level, it was oriented towards satisfying the felt-needs, that is, construction of household toilets should be undertaken by the household, which could choose from a menu of affordable options. Cash incentive to BPL families was to be disbursed afterwards (Government of India 2007).
- Solid and Liquid Waste Management (SLWM) accounted for up to 10% of the funds, while administrative charges like monitoring and evaluation were less than 5%.

TSC progress was monitored through an online system, which tracked utilization of funds, targets and achievements regarding latrines built at households, schools, etc. Data were fed into the system and updated at district level and state level. A separate online monitoring system also existed for the Nirmal Gram Puraskar. All these data were public (Government of India 2011).

The TSC was a national campaign with numerous **actors** and roles, which depended on location. The following table is an approximation of the 'average' institutional constellation.

Level	**Actors and role**	**Tasks**
Centre	The Department of Drinking Water and Sanitation (DDWS), in the Rural Development Ministry of the GoI, had a coordination role, enabling policies, providing funds to the states and monitoring progress.	Coordinate the TSC. Update TSC policies and inform states. Delegate responsibilities to states. Monitor rural sanitation progress. Distribute TSC funding (80%) to states. Hold states into account. Verify ODF GPs and distribute NGP awards
State	The State Water and Sanitation Mission developed overall strategies, with either the Public Health Engineering Department or the Panchayat Raj & Rural Development Department in charge of coordinating the implementation.	Develop state policies based on TSC national policy. Contribute to the TSC funding (20%). Distribute the TSC funding to districts. Coordinate state implementation with districts. Report sanitation coverage to national level.
District	Similarly, the District Water and Sanitation Mission played a planning and coordination role. A dedicated Sanitation Cell at the District Rural Development Agency and in charge of its Project Officer was in charge of practical implementation.	Implement state TSC policies. Distribute the funding to blocks. Organize district-wide capacity building, communication and monitoring. Propose different sanitation technologies. Report sanitation coverage to state.

Block	The Block Development Officer, education and health officers and a TSC coordinator had to provide continuous support in terms of awareness generation, mobilisation and training.	Provide trainings to GP leaders. Distribute funding to GPs. Organize IEC or motivational activities in GPs Report sanitation coverage to districts.
GP elected leaders	The Gram Panchayat body was expected to take a leadership role, planning, implementing and monitoring locally.	Lead implementation of TSC in villages. Support and implement IEC and motivational activities Distribute incentives to BPL households. Support households for latrine construction. Report sanitation coverage to blocks.
Rural households	The households are expected to demand sanitation and build latrines, as well as to motivate their pairs to do the same.	Attend village sanitation meetings and activities. Motivate neighbours to construct and use toilets. Construction of household latrines. Adopt improved sanitation practices, end open defecation.

Table 7: Actors, roles and tasks in TSC
Based on (WaterAid 2008, Water and Sanitation Program 2011, Government of India 2004)

Non-Governmental Organisations (NGOs) supported the campaign at various levels, especially for social mobilisation. Rural Sanitary Marts could also be set up in order to deal with the sanitary materials, hardware and designs and reinforce supply (Government of India 2011).

Although capturing a big campaign like the TSC in the dimension and aspects outlined for categorising approaches has limitations, I have made an approximation here based on its guidelines, as I find it useful for understanding the common elements with the different approaches.

Programming	P1: Demand-led P2: Bottom-up and top-down P3: Collective P4: Post-construction incentive for poor households P5: Authorities raise awareness through IEC, then community leads
Hardware	H1: Different designs available for households to choose H2: Dry latrines are not accepted
Software	S1: Rational S2: Health and other benefits of sanitation S3: Local through different IEC tools S4: Software represents 15% in budgetary terms. Campaign finishes when latrines are built

Table 8: Dimensions of the TSC as per its guidelines

The real TSC, outcomes and recent changes

With such a well-crafted policy, laden with principles widely promoted in the sanitation sector, India's TSC was expected to bring meaningful sanitation progress. In fact, the Department of Drinking Water and Sanitation (DDWS) reported rural sanitation coverage of 68% in 2011, an increase of 46 points since 2001 (Government of India 2011). 28000 GPs have been awarded the NGP between 2005 and 2011 (Ministry of Drinking Water and Sanitation 2011).

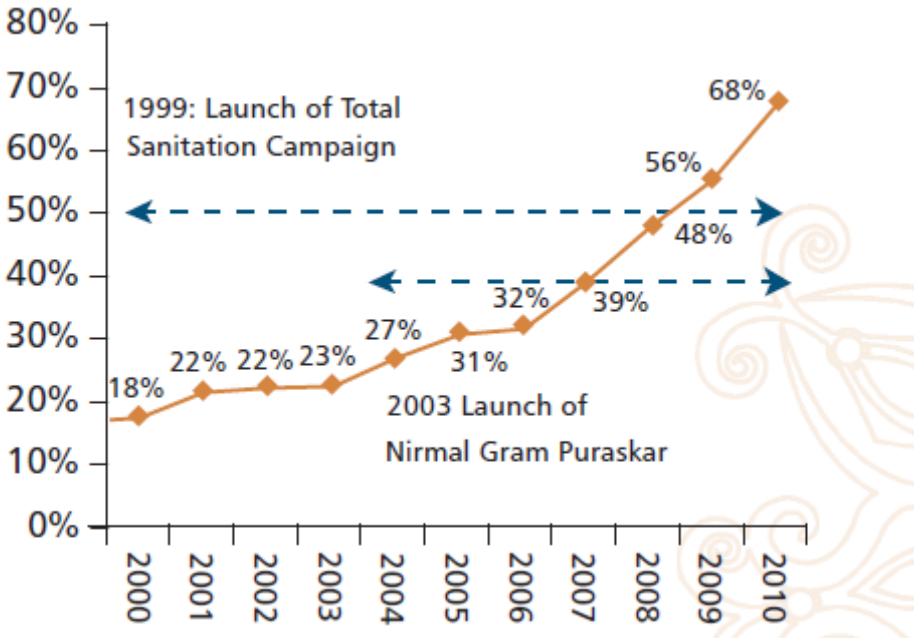

Figure 6: Rural sanitation coverage in India since 2000 as reported by DDWS (Government of India 2011)

In reality, though, sound policy did not always translate into good practice. Interventions were poorly implemented in many states and results seemed to be far below the reported progress.

A study by WaterAid (2008) reported that the governments of Chhattisgarh and Bihar were implementing the campaign using hardware subsidy as one of the key drivers. This includes disbursing the TSC incentive as an upfront subsidy, as well as increasing and extending it to APL households. The GoI itself recognized that "Field studies show poor utilisation of existing sanitary toilets, largely due to lack of awareness, scarcity of water, poor construction standard, emphasis on standardised designs without attention to local specificities and general absence of involvement on the part of the beneficiaries" (Government of India 2002, p.38). There are also studies on the outcomes of the campaign, which have analysed GPs awarded with the NGP. These reportedly 100% covered GPs showed an average of 81% coverage and around 65% usage at the household level (TARU 2008, CMS Environment 2011). Only 4% of the GPs studied reported ODF status (TARU 2008). 36 percent of the household toilet construction was done by GP leaders instead of by the households (TARU 2008). Many latrines presented unfinished or poor installation or were used for purposes alien to defecation (CMS Environment 2011).

The 2011 Census Data (Government of India 2012) recently confirmed the failure of the TSC. In a decade, coverage reached 30.7%, an 8.8 points increase, far less than during the previous decade, and ridiculous if compared with the 46 points jump reported by DDWS. Less than one fifth of the toilets 'officially constructed' were actually in place at the time of the Census. In absolute figures, due to the increase of the population, the picture is even bleaker: in rural India, the number of household without toilet has increased in 8.3 millions in the last decade (Government of India 2012). At a similar pace of progress, universal rural sanitation would not be achieved before 2088 and number of households unserved will keep growing until 2020.

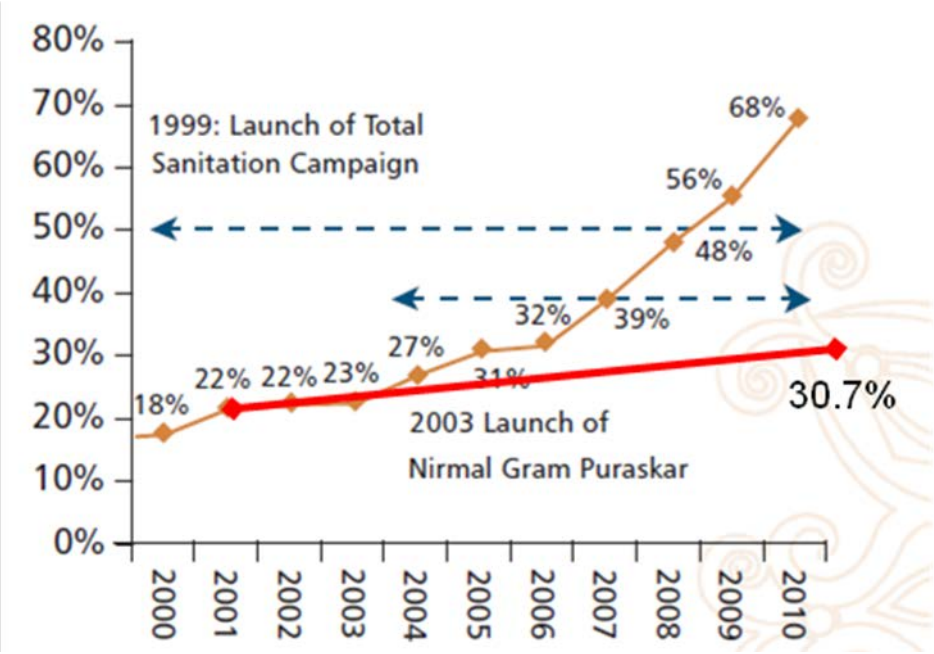

Figure 7: Rural sanitation coverage according to Census (red line) and to DDWS (brown curve) (Government of India 2011, 2012)

TSC's failure was also confirmed in 2011 by India's first Drinking Water and Sanitation Minister, Jairam Ramesh: the "Total Sanitation Campaign has been a failure. It is neither total, nor sanitation nor a campaign" (Tandon 2011).

In February 2012, the GoI announced the transformation of the TSC; the new and re-baptised **Nirmal Bharat Abhiyan** (NBA) was created to revamp India's rural sanitation policy. The NBA included a budget increase from Rs.1,500 crore to Rs.3,500 crore in 2012 (India Sanitation Portal 2012). The majority of this budget went to doubling the incentive amount, from Rs.2200 (approximately 30€) until mid-2011 to Rs.4600 (Government of India 2012). The criteria for receiving the incentive changed, introducing a more complex identification of weaker community groups. In addition to BPL, Above Poverty Line are also eligible for the incentive, provided they belong to Scheduled Castes or Tribes, they are headed by a woman or physically handicapped person or they are considered small and marginal farmers or landless labourers with homestead. Convergence with the MGNREGA employment scheme was also introduced, providing eligible households with an extra Rs.4500 in materials or labour (India Wash Forum 2012).

Another change was a stronger focus on awareness and communication. More resources will be devoted to IEC, which should continue even after ODF is achieved. Peer influence was recognized as a driver for behaviour change, calling for prioritization of inter-personal contact and motivation. For communication, the NBA will incorporate a national dimension, including an Indian sanitation week and involving Bollywood stars (Government of India 2012).

Political priority of rural sanitation has risen in India since the creation of the Ministry of Drinking Water and Sanitation in 2011. The Minister's provocative advocacy –though focused mainly on enhancing the budget– for sanitation in the media has boosted knowledge of national sanitation gaps

(Sanitation Updates 2012). However, he has recently been stripped of the post and it is not clear whether the new Minister will keep the same level of commitment to the cause (IRC 2012). Another doubt that remains is whether the changes introduced in the NBA will become effective and make the new NBA bring the sanitary revolution India needs.

Introduction and scaling up of CLTS in India

Against the scenario of the announced failure of the TSC, various actors in the rural sanitation sector have been promoting different approaches. One of the most relevant is Community-Led Total Sanitation (CLTS). CLTS was pioneered in the neighbouring Bangladesh in 2000 and arrived to India only in 2002. The World Bank's managed Water and Sanitation Programme (WSP) in South Asia, which had recently started focusing on sanitation in India, organized a presentation of CLTS by its pioneer Kamal Kar and a subsequent visit to pilot villages in Bangladesh with relevant sanitation actors (Sanan 2011).

Mixed impressions resulted; while WSP and members from the Maharashtra state government got convinced of the potential of the new approach in India, sanitation officers from GoI's Department of Drinking Water and Sanitation (DDWS) felt that CLTS was not worth replicating in India. The involvement of NGOs and the no-subsidy policy in the Bangladeshi pilots differed from the Indian policy, based on subsidy and involving Panchayati Raj Institutions (Sanan 2011).

As a consequence of Maharashtra's interest, CLTS approach was introduced in two of its districts in 2002. Through subsequent workshops, further CLTS supporters emerged, including the Secretary of the Department of Rural Development in Himachal Pradesh, who promoted in 2005 the development of a new sanitation policy in the state, which endorsed the key principles of CLTS. In 2006, Haryana also started using CLTS in some districts, mainly in Bhiwani, Panipat, Karnal and Sirsa (WaterAid 2008).

Since 2006, WSP supported the introduction of CLTS in Haryana and Himachal Pradesh and, later, in Madhya Pradesh, Andhra Pradesh, Karnataka, Meghalaya and Orissa (Kumar, Shukla 2011, Knowdlege Links 2011). Apart from exposure visits, WSP support went mainly to organise trainings, complemented with some support to the interested administrations for strategic planning. The trainings aimed at training state and district staff in CLTS and creating a critical mass of CLTS master trainers (district and block government workers, members from local NGOs). They were conducted by support organisations. In the case of the two states included in the research, Madhya Pradesh and Himachal Pradesh, these support organisations were the consultancy firms Feedback Ventures Foundation and Knowledge Links, respectively. It the two states, WSP activities were more intense, having a resident coordinator in each state (Rosensweig, Kopitopoulos 2010, p.51).

WSP's support to districts and states were the most relevant effort to promote CLTS in India during the 2000s, but not the only one. There were also two experiences in urban settings, namely Kalyani in West Bengal and Raigad in Maharashtra (Kumar, Shukla 2011). In addition, the Key Resource Centre at Uttarakhand Academy of Administration, a Government supported agency for training administration members in sanitation software, spread the knowledge of CLTS to officers from at least 24 states

(Knowdlege Links 2011). Also relevant are the research activities around CLTS in India promoted by the Institute of Development Studies, based in Brighton, UK. In the late 2000s, the CLTS Foundation, based in Kolkata, was created by Kar.

The start of the 2010s has brought new initiatives and the emergence of a new incipient strategy. Instead of trying to promote CLTS at a big scale (district or state) through trainings, the idea is to focus on selected blocks and make them ODF. For this, a more intense accompaniment of the process is envisaged, to make sure CLTS is used in its true spirit and local champions have the support needed. The overall aim is to show results on the ground directly and attract the attention of the concerned district and state administration, so that they adopt and scale up the approach (Knowdlege Links 2011). UNICEF Madhya Pradesh started this in Budni block in 2010 in collaboration with the local government and extended it to Guna block in 2011. Similarly, DFID recently selected specifics block in Bihar to make them ODF (2011).

Challenges of CLTS in India

The first decade of CLTS in India showcased the challenges for scaling up described in the previous section: opposition, mixed approach, quality of triggering and over-reporting.

The clearest one is **opposition**, as the approach has faced a hostile policy environment at the national level, which still continues (Kumar, Shukla 2011). This is despite an overall affinity between the stated objectives in TSC and the CLTS principles. But while GoI fiercely defends the need of household incentives and tolerates their almost universal use as subsidies (upfront disbursement), CLTS supporters insist on the failure of subsidized sanitation and advocate for a zero-subsidy policy (Sanan 2011). This disagreement has also led to personal and institutional tensions, resulting in low policy acknowledgement of CLTS.

Therefore, CLTS has generally been taken forward by individual champions at the block or district government. In addition, they had to negotiate the sanitation strategy, balancing their conviction of CLTS potential and the reality of its non-acceptance at the policy level (Kumar, Shukla 2011).

Also, this generally resulted in **mixed approaches**, with elements from CLTS and elements related to the TSC widespread practice, especially the use of individual household subsidy. Himachal Pradesh – with CLTS champions at national, district, block and village levels– is the only case of explicit policy support to the no-subsidy principle of CLTS, while in Haryana it was more covert, by not pushing for distribution of subsidies. In the rest of states, CLTS has co-existed with subsidies for BPL households, and also for APL households in cases such as Madhya Pradesh (Knowdlege Links 2011).

Due to the frequent post transfers in the Indian administration, the reliance on individual champions had a further consequence. When the champions had to move to another post, the approach was diluted and many times reverted to the conventional TSC perspective.

Also the problems for training facilitators and ensuring **quality triggering** are relevant in some areas, where there is lack of people willing to work on CLTS and of training organizations (Shukla 2012)

Finally, the issue of **over-reporting** is especially serious in India (Chambers 2009), partly due to the incentives for becoming ODF, such as the NGP. This is linked to what is considered one of the main problems for scaling up CLTS in India: the failure to show crystal-clear evidences of sustainable outcomes on the ground (Knowdlege Links 2011).

This is partly related to the lack of accurate information on the results in terms of coverage increase and how many GPs become open defecation free (Knowdlege Links 2011). On one hand, official data in the TSC online monitoring system are highly inaccurate. Though less comprehensive, the verification system of the Nirmal Gram Puraskar award scheme could be a more reliable source. However, verification was very lax at least until 2008 (WaterAid 2008, TARU 2008). On the other hand, little efforts have been made by CLTS proponents to analyse the CLTS experiences and extensively evaluate long-term outcomes.

But the failure to show evidences of sustainable outcomes is also connected to the general challenges of CLTS described earlier, namely that few villages really become ODF, and among those, few are able to sustain this status. Successful experiences at some scale are scanty. Where a mixed approach was followed, outcomes have been average. But even in districts where CLTS was claimed to have brought about a sanitary revolution, results are not up to the expectations. Recent evidences from district Panipat in Haryana (Bell 2011) and district Nanded in Maharashtra (Knowdlege Links 2011) showed that CLTS is more effective than TSC, but latrine usage gaps remain and few villages have sustained ODF status –if they ever achieved it. Only Himachal Pradesh remains as a credible success story at scale, and has some supporting evidence, although methodologically weak (Sanan, Chauhan et al. 2010).

To sum up, we can say that CLTS faces similar problems and challenges in India than it does in other countries. The pre-eminence of the role of the government as compared to NGOs is one of the specificities, along with a national policy practice strongly reliant on subsidies and with a powerful collective incentive system. There are few CLTS successful and sustainable experiences at scale, with the exception of Himachal Pradesh, though still with inconclusive evidences. Have the strategies to scale up CLTS been mistaken? Can the more recent strategy make a difference and success in proving CLTS potential for sanitation in India?

In the next chapter, I try to set the frame from which to contribute to answer these questions and to address most of the challenges and critiques CLTS faces globally and in India. For that, I develop an analytical framework around the concept of sustainability, from the perspective of the Pathways Approach.

3. Pathways to sustainability in sanitation

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3.1. Outline of the chapter

In the previous chapter, I highlighted some of the issues and challenges affecting the introduction of CLTS in India, which are primarily related to scaling up and sustainability. In order to be able to study these issues, I develop in this chapter the analytical framework around the concept of sustainability, rooted on the perspective of the Pathways Approach.

In the next section, I first describe the different perspectives on sustainability, then explain the main elements of the Pathways Approach and its implications, and finally interrogate its applicability to sanitation in general and to this research in particular. The third section deals with the definitions of sustainability in the sanitation sector, in the CLTS literature and as I understand it from a Pathways Approach perspective. The subsequent section deepens in the perspective I use in the research for analysing sustainability of sanitation on the ground, namely on its normative dimension (maintained Open Defecation Free status with increased social justice) and dynamic perspective (social, technological and environmental dynamics). But a broader look at the surrounding policy processes is also important, so in the fifth section I describe the recent trends on policy analysis, explain the perspective of the Pathways Approach, analyse how policy process has been analysed in sanitation and finally present the framework I will use for the research, involving policy narratives, agents and interests. The last section presents the research questions, linking them to the ideas and frameworks presented in the chapter and in the previous one.

3.2. The Pathways Approach to sustainability

Perspectives on sustainability

Sustainability has become one of the most relevant and contested terms of recent times. Contemporary debates started in the environmental movements in the 1970s, with the publication of 'The limits to growth' (Meadows, Randers et al. 1972) as a landmark that helped highlighting the links between environmental issues and development. The debates around sustainability (broad or narrow, weak or strong, etc.) and sustainable development gained momentum in the 1980s, especially in the run up to WCED's Rio conference in 1992 (Leach, Scoones et al. 2010). The most widely used definition of sustainable development was coined during that period, with the publication of the so called Brundtland Report: sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987, p.43). Regarding the needs, the report considers that overriding priority should be given to the essential needs of the world's poor. With the word 'limitations', it refers to constraints due to the state of technology and social organization, mediating between the environment and the satisfaction of present and future needs (WCED 1987).

The Rio Conference was the high point of this process. Government, NGOs and civil society met in order to translate these debates into practical policy and action and put sustainable development on top of the political agenda. High level conventions were launched (on climate change, biodiversity and desertification), commissions established, planning processes set up, indicator measuring and accounting techniques established and follow up conferences planned. Also a more bottom-up program, the local level Agenda 21, was initiated, trying to bring the social, environmental and economic realm together (Calabuig Tormo 2008, Leach, Scoones et al. 2010).

As a result, there was an "exponential growth in planning approaches, analysis frameworks, measurement indicators, audit systems and evaluation protocols, which were to help governments, businesses, communities and individuals make sustainability real" (Leach, Scoones et al. 2010, p.39). However the outcomes of these initiatives were far from expected, with little progress towards the targets set. Managerialism and bureaucratization, ignoring wider political debates, allowed key elements being captured by powerful groups, as well as the repackaging of old initiatives. Therefore, *status quo* remained unchanged and much of the initial commitment around sustainability was soon diluted (Leach, Scoones et al. 2010).

Different scholars and social movements in parallel summits have argued that the concept of sustainable development is partly to blame. It has been framed from a technocratic perspective and is to some extent value-neutral. Its neutrality and ambiguity has permitted wide acceptance, but it has also allowed actors using it without deep questionings of the system, or even capturing it in order to add a green coat on capitalist practices. Environmental concerns could thus be accommodated without changing the foundations of the neoliberal project, despite these principles –especially the idea of

unlimited growth– having deepened the gap between rich and poor and threatened the environment (Calabuig Tormo 2008).

Therefore, many believe that the concept of sustainable development has been emptied of its values and prefer to use other concepts such as environmental justice or degrowth. The latter, also known as *décroissance,* comes from post-development scholars, who argue for dropping the concept of sustainability altogether and thus avoid its neutrality and ambiguity (Latouche 2006). Instead, degrowth proposes a clear political path which is in the antipodes of current neoliberalism. To what concerns environmental justice, it emerges from the reaction of local communities against external threats to their environments. In contrast to sustainability movements and traditional environmental groups, it includes social justice and equity considerations very explicitly. In addition, it is strongly grassroots-based and has a bottom-up perspective (Taylor 2000).

There are others, however, who refuse to drop the term 'sustainability' and opt for reclaiming the concept and redefining or clarifying what it means. For instance, scholars promoting the just sustainability paradigm attempt to bridge the gap between environmental justice and sustainability discourses by giving justice and equity a pivotal role within sustainability (Agyeman 2005). The STEPS Centre in the Institute of Development Studies in Sussex, has also put forward a new vision on sustainability –called the Pathways Approach to sustainability– that puts social justice in the centre stage. They start from the already mentioned critiques to sustainability related to its neutrality and technocratic perspective, to which they add the remark that the idea of needs and limitations is too static. In a world characterised by increasing complexity, dynamisms and uncertainty, such a notion is not appropriate anymore. (Leach, Scoones et al. 2010). In this research, I take the Pathways Approach as the starting point of my analytical framework. Thus, I now move on to explain the approach and in the next sections explore its potential for researching the sustainability in sanitation.

The Pathways Approach

Dynamics and uncertainty have often been ignored in conventional policy approaches for development and sustainability, which promote expert-led interventions, based on blueprints and technological transfer. These approaches are rooted in equilibrium thinking, where sustainability is a natural balance. They also assume that models developed for one setting will work in others, exporting them from the laboratory to the field and from developed to developing countries. Underlying such approaches are non-problematised technocratic views of what development is and what sustainability is, assuming a singular pathway to progress. Such models have too often failed the intended beneficiaries, firstly because they don't reflect their priorities and secondly because dynamism quickly undermines the underlying assumptions (Leach, Scoones et al. 2007).

The Pathways Approach (PA) tries to rethink the concept of sustainability in order to overcome these problems. Two basic assumptions are made (Leach, Scoones et al. 2007):

First, the world is highly **complex and dynamic**. Environmental conditions are changing quickly, for example, as water, land and other ecological systems interact with climate change. Developments in

technology are proceeding faster than ever, and the spread of technologies is shaped by highly globalised patterns of investment and information. Social systems, linked to population growth, migrations and market relationships, are transforming fast too. Environmental, technological and social systems not only change rapidly, but also interact constantly.

Second, the understandings and interpretations of these dynamic systems are not unique, but vary between different people and groups. One reason for this is that dynamic systems and contexts normally involve **incomplete knowledge** about possible outcomes and their probabilities. As a result, we are not able to predict or determine the particular directions in which these interacting social, technological and environmental systems co-evolve over time. Another reason is that the perception of these systems is shaped by the **framings** of the different groups; their particular contextual assumptions, forms of interpretation and values. Thus, the systems are perceived at the same time as objective realities and subjectively, through the lenses of different 'framings' (which is linked to a realistic epistemological perspective). The framings might emerge from the different stakeholders (e.g. researcher, NGO, citizens) or disciplinary perspectives (e.g. social or life sciences). Therefore, rather than a sole and neutral notion of progress, we find a multiplicity of possible **normative** goals, and multiple and contested pathways to reach them.

Departing from these two assumptions, the **concept of sustainability** is redefined.

Colloquially, sustainability is understood as the capability of being maintained at a certain rate or level. But, what is to be maintained? If there is a diversity of framings and goals, this becomes a **normative question** that has no single answer. Sustainability refers thus to the maintenance of the system properties valued by different groups in particular settings, and always contributing to the overall aims of poverty reduction, social justice and environmental integrity. The different perspectives, especially those coming from people living in poverty and marginalisation, need to be taken into account. This 'maintenance of the system' does not imply static equilibrium; sustainability is seen as a **dynamic process**, where the different systems co-evolve over time. Systems are understood as social, technological and environmental elements interacting dynamically. They have functions (services, outputs and consequences) and structures (what constitutes the system and its boundaries and its relationships and evolution patterns) that interact and evolve and can thence be subject to short term shocks and long term stresses. How they respond to these challenges is something attention should be paid to. Each social group might frame the systems and challenges differently.

The concept of the **pathway** illustrates this vision of sustainability. Pathways are the different "possible trajectories for knowledge, interventions and change which prioritize different goals, values and functions" (Leach, Scoones et al. 2010, p.5). They in turn envisage different strategies to deal with dynamics and incomplete knowledge.

This new vision of sustainability allows a better comprehension of the processes towards sustainability, embracing dynamics and uncertainties. It is also a political redefinition, using a normative perspective on sustainability. However, the PA takes to some extent an eclectic stand and leaves social justice rather unspecified, as it does not engage with the wider literature and refrains from discussing relevant issues such as recognition, participation or distribution. The purpose behind leaving the

concept of social justice open is to allow for the redefinition of sustainability (and social justice) at the local level, which in turn increases plurality and gives space for the perspectives of those generally less taken into account. The process is thus recognized as contested, facilitating argument about diverse pathways to different futures and bringing sustainability (back) into the realm of the political.

The PA challenges the conventional technocratic processes around sustainability issues, where a single pathway is presented as the right solution to a particular problem. Instead, alternative pathways have to be taken into account in an even playfield in order to make a decision of what pathway or pathways to take.

But how are the pathways articulated? Pathways are generally embedded in particular **narratives**. A narrative is like a story that starts from particular framings of the problem (what is the problem, what system elements are relevant, what are the goals pursued) and ends with the logical solution or course of action needed to solve it and bring about the desired outcomes (how should systems evolve, what kind of interventions is best to make it happen). Different actors endorse specific narratives, which reflect best their vision about the problem and its solution. However, through different processes – with scientific, professional and institutional dimensions– this plurality is often closed down by powerful actors and a particular narrative becomes dominant.

General implications

The Pathways Approach (PA) has mainly been devised for a prospective use, that is, for rethinking the engagement in processes around present and future sustainability issues, so that dynamics and uncertainty are addressed and its normative dimension and the plurality of framings are taken into account. Summing up, the aim is to recognise alternative narratives and pathways which address all the different dynamics of sustainability and contribute to the goal of social justice; “diverse pathways to different futures” (Scoones, Leach et al. 2007, p.34).

This encompasses implications both for appraisal and for political strategy.

First, different methods for **appraisal** have to be used. They should broaden up the inputs to appraisal so that all the relevant dynamics are taken into account and uncertainties are not neglected. This entails attention to narratives that are sometimes hidden, especially those that support the needs and aspirations of people struggling to escape poverty and marginalization. In addition, the outputs of the appraisal have to be opened up, that is to offer a broader array of options, defining multiple potential pathways to sustainability and acknowledging the risks and trade-offs.

Second, a new **politics** of sustainability, that highlights and supports alternative pathways, is needed. Better appraisal methods can encourage reflexivity, challenge power relations and show alternative narratives. But what is taken up and acted upon will clearly still be influenced by power structures, actor networks and interests at multiple levels. Powerful institutions that have interest in and support dominant narratives can obscure and delegitimise alternative narratives. The policy processes has to be analysed in order to effectively engage in it and bring into the political arena alternative pathways

to a sustainable future. In addition, the different ways of effecting change through citizen action or social movements have to be explored.

A Pathways Approach to sanitation?

The question arises whether this approach can be applied to sanitation issues. Several authors' answer would be 'yes', (Mehta, Marshall et al. 2007, Movik 2008) as they consider that sanitation and water also involve complex and interconnected dynamics of social, technological and environmental change, which can be seen from a multiplicity of perspectives, too. Therefore they have developed a particular –though rather water-oriented– framework that comprehends "the interaction of social, technological and ecological dimensions of complex, dynamic water and sanitation systems, and addresses whether they are sustainable in terms that poorer and marginalised people value, and which enable them to exercise agency in water and sanitation services provision" (Mehta, Marshall et al. 2007, p.14). Being specific on sanitation, they consider it spans "questions of engineering (e.g. drainage/groundwater contamination), culture (e.g. perceptions and practices around defecation and hygiene), technology (e.g. whether pit or flush latrines and accompanying drainage issues) and the socio-economy (e.g. financing mechanisms and behavioural switches to using toilets)" (Mehta, Marshall et al. 2007, p.5). Nevertheless, dominant narratives on sanitation often don't address emergent challenges associated with these dynamics (Movik, Mehta 2009). Further, they focus on engineering issues and on public health debates concerning the behaviour change necessary to induce people to stop open defecation and use toilets, often ignoring other aspects like local socio-cultural practices. As a result, the policies associated to these narratives tend to remain disconnected from the everyday experiences and priorities of the people, ignoring their framings and proposing a single pathway to sanitation. Thus, interventions too often fail to meet the sanitation needs of poor and marginalised people in sustainable ways.

Summing up, the complexity and dynamism in sanitation and the fact that sanitation interventions often fail to address them and yield expected results, brings to the conclusion that the PA not only can be applied to sanitation, but is highly relevant for analysing and understanding such experiences.

There are other approaches that could potentially be useful for the intended analysis, too. Among them, political ecology stands out. Related to the environmental justice paradigm, it is defined as the study of ecological distribution conflicts, such as unequal access to resources or consequences of environmental degradation (Martínez Alier 2002). Political ecology brings together environmental, socio-cultural and economic issues (Escobar 2006), allowing for a holistic analysis in a similar way as the PA does. However, political ecology focuses primarily on environmental conflicts, generally encompassing grassroots movements confronting specific situations with influences between different geographic levels. This makes it less useful for the research at hand; rural sanitation programmes neither raise much interest of citizens and social movements nor have clear linkages across geographical levels.

Retrospective use and implications for this research

Once it is clear that the PA can be applied to rural sanitation, the question arises whether it is relevant for the present study of past sanitation experiences, taking into account that the PA has been devised and mostly used in a prospective sense. Does such a change of perspective make sense? What are its implications?

I argue that the **retrospective use** of the PA is not only acceptable, but can also give powerful elements for analysing specific and already finished interventions such as the ones studied here. Although generally used prospectively, the PA also entails looking back: "Over time, understanding pathways requires a look at historical precedents, at current trajectories of change, and at future scenarios, whether over shorter or longer terms" (Leach, Scoones et al. 2007). And I believe that this retrospective use can be the primary focus when trying to understand past experiences and shedding light on 'where we are' in any sustainability related issue.

When looking back, PA issues like incomplete knowledge and risks lose some relevance, while the evolution of the dynamics and the challenges that aroused over the time become prevalent. Despite these nuances, the implications of the PA used retrospectively are analogous to those in the prospective case (appraisal and politics).

First, it affects to the **understanding and analysis of sustainability** in sanitation. Sustainability will have a normative dimension, encompassing social justice with environmental integrity. Inclusion in the process and regarding its outcomes are important, especially of those least able. But it has to be referred to what people value and experience, taking into account the existence of diverse perspectives. To encompass dynamism, the evolution over the time needs to be taken into account, trying to understand the evolution of the social ecological and technological systems, and the challenges to sustainability that emerge.

Second, it involves paying attention to the **policy process** that shaped the interventions studied. Which narratives came into play and which were excluded? How did the different actors and networks at the different levels engage in the process? How did their interests and power affect the process? What tensions aroused? Exploring these questions can help explaining how the actual policy pathway – amongst all the possible ones– came into being and was taken. This is very interesting for this research as the interventions studied were the result of the introduction of CLTS in a setting where there was a different dominant pathway.

Therefore, in the following sections, after exploring the concept of sustainable sanitation, I will elaborate on these two implications, namely what sustainable sanitation implies regarding normativity and dynamics, as well as how to understand policy processes in the sanitation sector.

3.3. Defining sustainability in sanitation

Common definitions

Sustainability in sanitation is generally poorly specified and refers to the maintenance of whatever is being implemented or pursued, be it a change of sanitation practices or a sewage collection system. Much depends thus on the meaning given to sanitation. However, in some cases, a more detailed definition is found.

Carter (2009), for instance, says that a sanitation system could be considered to be sustainable when it continues to work over time, encompassing sanitation, water supply services and hygiene practices. This sanitation system should provide a permanent service to its users, and to those who will access it in future. Carter further points out that, in the case of on-site sanitation, sustainability depends heavily on user motivation and access to resources to manage the service, which might also result in permanent benefits.

Without defining it explicitly, Jenkins and Sudgen (2006, p.2) consider sanitation sustainable when the sanitation products and services extend beyond external support. At the household level it encompasses willingness to empty or build a new pit when the initial latrine is full, along with designs that allow it. At the village level, sustainability is related to permanent improvements in access and costs of latrine components and technology options, so that late adopters and new families can access safe sanitation.

Other authors (Bracken, Kvarnström et al. 2005, p.2) define sustainable sanitation in a less static way and pin down more clearly its outcomes and elements: sustainable sanitation should protect and promote human health, not contribute to environmental degradation or depletion of the resource base, and be technically and institutionally appropriate, economically viable and socially acceptable.

McConville (2008, p.2) uses this definition and also acknowledges the existences of different perspectives and discourses around sustainable sanitation.

The term sustainable sanitation is sometimes used interchangeably with ecological sanitation, but this won't be the case in this work.

Sustainable sanitation in the CLTS literature

In the CLTS literature, sustainable sanitation is identified with sticking to the new sanitation behaviour and the maintenance of open defecation free (ODF) status into the long term. Some signs of sustainability are identified in the CLTS Handbook (Kar, Chambers 2008, p.54-55) related to the challenges the community will face. The first challenge will usually be that pits fill up or its walls collapse. A general trend of households spontaneously constructing another (better) latrine, moving up the sanitation ladder, indicates sustainability. A second challenge identified is that the potential

relapse into open defecation (OD), either due to passers-by or new-comers or because children, elder people or others are reluctant to change and revert to OD. The community will respond with sanctions against those who continue defecating in the open, as well as offering cooperation to households unable or unwilling to build or use a latrine (sharing latrines, collective labour, loans, land, etc.). The power of the ignition moment is seen as the key factor for the sustained empowerment of the community, which will be the fuel for them responding to the different challenges. Natural Leaders that emerge during the process are considered to play a leading role in ensuring that these changes are sustained. Another factor is the experiential awareness of the benefits of being an ODF community, which will nurture the will to remain like that (Kar, Chambers 2008).

In practice, two trends of perspectives can be distinguished when looking at sustainability in CLTS. One focusing on changed sanitation practices and technologies (outcome) and one focused on the empowerment of the community (process), which would serve not only to address the challenges to their new sanitation practices, but also as a springboard to other activities such as garbage collection or even to further development goals (Movik 2011).

Perspectives in empirical studies range from a narrow and static focus on the outcome (whether ODF is maintained) to growing levels of incorporation of process elements, like movements along the sanitation ladder (Allan 2003), new comers (WaterAid 2009), rules against open defecation (Hanchett, Krieger et al. 2011), consolidation of organisational processes (Shayamal, Kashem et al. 2008), etc.

Definition of sustainable sanitation from a Pathways perspective

Combining elements from common definitions of sustainability, the CLTS literature and the Pathways Approach, I have come to the following characterization of sustainable sanitation:

Sanitation sustainability refers to the ability of the community to maintain into the long term an ODF environment with increased social justice.

Thus both outcomes and process (dynamics) are looked at. The outcome is normatively defined, going beyond an ODF environment and including social justice, which needs to be refined through the **diverse perspectives** of the community, especially the least able. The 'long term' encompasses environmental integrity, too. The process is understood **dynamically**, taking into account the evolution of the environmental, social and technological, the challenges faced and how the community copes with them. I expand on these in the next section.

3.4. Dynamics and normativity in sustainable sanitation

Antecedents from the theory

As said before, one of the implications of using the PA retrospectively for analysing sanitation experiences is on how we understand and analyse sustainability, especially regarding its normative dimension and the dynamics involved.

I mentioned before that some scholars (Mehta, Marshall et al. 2007) developed a PA-inspired framework for water (and sanitation) issues. Their framework addresses both the normativity and the dynamics, and serves for analysing which (and how) particular pathways might lead to sustainability, poverty reduction and social justice. The following figure illustrates the dimensions of concern they propose.

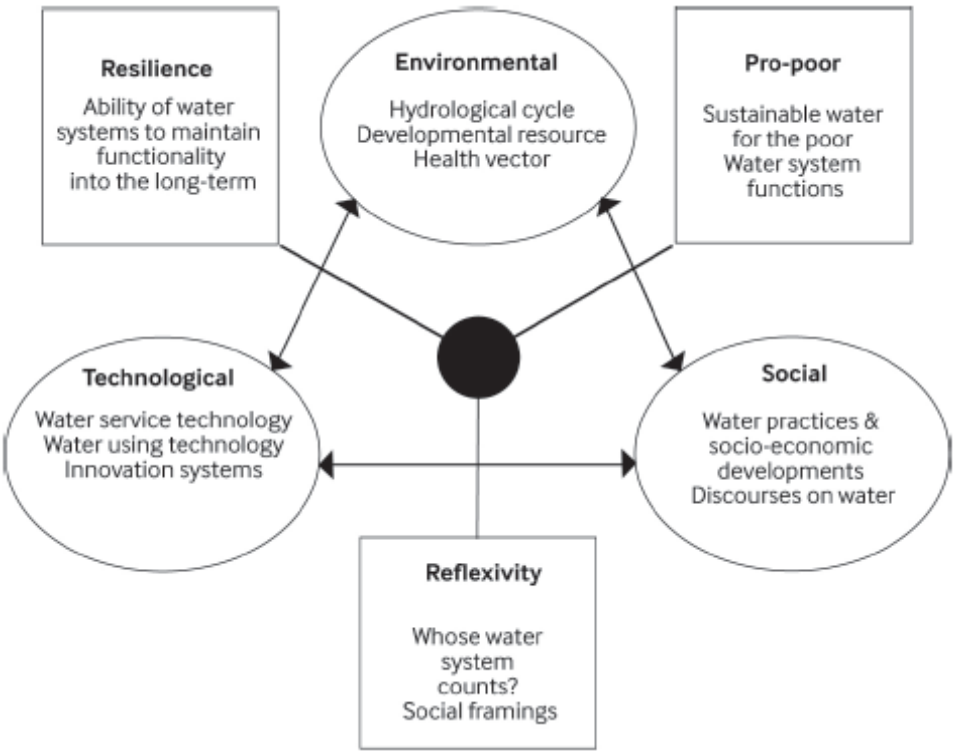

Figure 8: Dimensions of concern with water and sanitation dynamics
(Mehta, Marshall et al. 2007)

Regarding dynamics, three spheres of changing and interacting processes are taken into account. In the social sphere, water practices or socio economic developments are some of the involved elements. Water technology and innovation systems exemplify the technological sphere. Finally, the environmental sphere includes issues such as the hydrological cycle or health vectors.

Normativity is rooted in the idea that different actors may understand the systems diversely, interpreting them from their particular framing and acknowledging to different extents the

uncertainties involved. Sustainability is thus composed of three elements. Firstly, in a more technical or definitional dimension, it is termed as resilience –the ability to maintain functionality into the long-term. Secondly, acknowledging its political dimension, these functions are put in relation to what poor people value (pro-poor). Thirdly, it involves a concern for reflexivity, understood as the recognition that framings of a system are partly constituted by the observer's own circumstances and the questionings of whose perspective is taken into account (Mehta, Marshall et al. 2007).

Movik (2011, 2008) has also applied similar ideas specifically to CLTS. Drawing mainly on existing studies, she analysed the social-ecological-technological interactions of CLTS, the factors that enhance its sustainability, whether there is exclusion around CLTS (the women, the poorest…), as well as whose views and values are taken into account. She has for instance pointed out a relevant socio economic interaction, namely people's perception of open defecation in the environment and how this links to health issues. She has also identified socio technological interactions that relate to how latrine design and technology are affected by cultural practices, beliefs, prizes, etc. Relevant social dynamics are for example honour, culture or religion, while technology choice, creativity or market hardware supply are cited as important technological dynamics. Environmental issues like groundwater contamination are pointed out as a risk (incomplete knowledge) that needs to be dealt with.

Previous empirical studies on CLTS sustainability

But apart from the more theoretical elaborations on sustainability and CLTS, there are also some empirical studies on the issue, conducted by NGOs, scholars or agencies. Although none of them has yet used the Pathways Approach as analytical framework, it is interesting to see how sustainability is understood in these studies, in order to compare what dynamics and normative issues they consider relevant and analyse. To that end, I have reviewed the framework used in the four most relevant (until 2009) studies of that kind.

A participatory study of the **drivers of sustainability** in CLTS (Shayamal, Kashem et al. 2008), by the Bangladeshi NGO VERC, analyses the different technological options implemented in the households and how they have changed over the time (moving up the sanitation ladder). Social aspects are considered when examining the drivers that promote the movement up the sanitation ladder. Some environmental aspects like water availability and settlement patterns are examined. The concept of sustainability used focuses on behavioural change and is at least partly dynamic: "sustainability comes from sustainability of the process" (Shayamal, Kashem et al. 2008, p.274). Data collected and results are stratified according to wealth, in order to analyse issues of inclusion.

A paper about the **challenges of scale and sustainability** of CLTS in rural Africa (Sah, Negussie 2009) briefly reviews the experiences of the international NGO Plan promoting CLTS in Eastern and Southern Africa. Social aspects are taken into account (Natural Leaders, institutional commitment, etc.) as well as technological ones (improved latrine options, costs of each alternative, etc.). Sustainability is understood as the ability of the communities to remain ODF, which indicates that behavioural change

has happened. Divergent perceptions are acknowledged in the suggestion to consider existing social customs and cultural sensitivities in the triggering process.

Two sequential studies on the experience of VERC and WaterAid with **CLTS in Bangladesh** focus on the cost of the latrines, motivational factors and sustainability (Allan 2003, Noor, Ashrafee 2004). Social dynamics are taken into account, including issues such as participation, decision making processes, institutional commitment, evolution of motivations over the time and sharing latrines. Technological dynamics are also analysed, for instance, latrine models, costs and the process of upgrading the latrine. The concept of sustainability used refers to the ODF status and to moving up the sanitation ladder. The different perspectives are taken into account, like those of the local government, communities and intra-community groups (such as mothers). It also mentions issues like the inclusion of all the actors in the triggering or the working conditions of sweepers.

WaterAid's study on its **total sanitation programmes** in Nepal, Nigeria and Bangladesh (WaterAid 2009) focuses on the extent to which these resulted in sustained and equitable improvements in sanitation behaviour. The work looks at social and technological dynamics, as reflects their description of a multidimensional process at the households: they build their first latrine, start to share a latrine when it gets damaged, and after some time build a new and better one. In the technological realm, they analyse the different types of latrines implemented and their level of hygiene. Some environmental aspects are regarded, such as the height of the water table. Taking the ODF status as starting point, sustainability is understood as entrenched and permanent improved sanitation behaviour, reflected in the capacity of the community to move up the sanitation ladder. Four indicators –related to challenges along that process– are used: Full pits are emptied or replaced, damaged latrines are replaced, new community members construct and use latrines and some households move up the sanitation ladder. Equality is central in the study, paying attention to disadvantaged and vulnerable households (female- and elderly-headed, poor or with disabled members) and to differentials due to culture, ethnicity or religion.

These four empirical studies take into account several social and technological dynamics, while environmental issues are usually less analysed, maybe due to the complexity involved. Sustainability is understood as long term maintaining ODF status, entrenched behavioural change and moving up the sanitation ladder. Normatively, social justice is present in some of the studies and understood as equality. Also, some of the studies recognise and take into account the diverging perspectives of the different actors involved.

Inspired by these theoretical and practical works and keeping in mind the retrospective use of the PA envisaged, I have developed a framework that reflects the relevant normative issues and dynamics in sustainability of sanitation, described in the following subsections.

Normativity

Earlier, I normatively defined sustainable sanitation as the ability of the community to maintain into the long term an ODF environment with increased social justice (normativity).

Thus, the ability of the community to maintain an ODF environment is the building block and assumed as positive change. It implies the safe management of all human excreta in the environment of the community, eliminating open defecation. However, ODF should not be considered an absolute and static indicator with which sustainability can be ticked 'yes' or 'no'. It is rather the aim towards which to progress. The ability and vitality of the community for doing so is more important than the specific status at one point of time.

But maintenance of ODF is not enough; it has to come along with increased social justice.

Social justice –as defined in the PA– refers to **inclusion**, meaning that all are included in the process towards adopting the new sanitation practice and that all enjoy its benefits. Besides, social justice also involves plurality; the experience of the process and the benefits are not universal, but framed in **diverse perspectives** within the community. That this plurality is taken into account –especially the perspectives of the least able– is relevant for social justice.

The PA does not give a detailed account of what social justice implies, as its openness is instrumentally valuable for the prospective use it was designed for. For this research however, using the framework retrospectively and analysing specific interventions, it is more appropriate to **particularise** what it involves. For doing so, I draw in the ideas outlined in this section.

For socially just sustainability to be achieved, there must be equal opportunities to adopt the new sanitation practice (generally building and using a latrine), encompassing motivation and support for changing the behaviour for all, irrespective of ethnicity, caste, age, levels of income or status. The least able should be especially borne in mind, especially regarding how they experience this process of change. For instance, those generally marginalised –e.g. living in separate far flung areas, belonging to low castes or female headed households–might have been excluded of the awareness raising or motivational activities, and even been forced to change their sanitation practices without any information or help. They, along with landless or very poor households could have struggled for constructing latrines, unless they were supported or handheld.

Regarding the benefits of the new sanitary practices, nobody should be excluded from them. This could happen, for example, if open defecation remains in a specific area. Again, the plurality of perspectives is important; these benefits are not defined by outsiders or by the village leaders, but refer to what people value. Different members of the community might experience different benefits, and this has to be acknowledged. Especially relevant are the perspectives of those whose needs are often neglected, like disabled people, schoolgirls, the elderly or women. Their specific needs and benefits (or unintended problems) need to be addressed if we envisage achieving social justice.

As per the definition of sanitation sustainability used, the maintenance of an ODF environment (with increased social justice) has to be 'into the long term'. It entails thence environmental integrity, namely that there are no serious side effects on the environment. For instance, there should be no contamination of the groundwater sources, including also those of neighbouring communities.

Dynamics

The definition of sustainable sanitation is a dynamic one, taking into account the evolution and interaction of the environmental, social and technological systems.

This is related with the idea of ODF being an aim but not a static indicator. Progress towards the aim can be quick or slow, and it might even be surpassed –when the community is empowered and goes beyond ODF. But the systems evolve and challenges may arise and result in reversion to OD, to which the community will have to respond to in order to become ODF again.

Some of the relevant dynamics in rural settings, as per the previous studies reviewed are the following:

Relevant **social** dynamics include institutional arrangements to address sanitation issues, sanitation practices and perceptions, population, health, religious beliefs and cultural practices, power relations, leadership, social fabric, community history and relationships with external actors such as NGOs and administrations.

Some important **technological** issues are the latrine designs, access to hardware supply, the movements along the sanitation ladder, the cleanliness of latrines, masonry tradition and innovation and learning systems.

Environmental dynamics include rainfalls, floods, water availability, soil profile, availability of local materials and settlement patterns, as well as possible effects on the environment.

When analysing sustainability, these dynamics and unforeseen ones need to be looked at, as well as how they have evolved and interacted. The list is not exhaustive and will vary in each particular setting.

Where a sanitation intervention is made, there are already some pre-existing **context**-related dynamics, which help understand why there is open defecation in the area (for instance a belief that OD does not affect health). Sanitation **interventions** can thus be thought of as a means to disrupt some of these dynamics and create new ones in order to eradicate the practice of open defecation. But even if interventions are successful, the new situation won't be free of new dynamics, and **challenges** might arise in later stages. For example, a long drought might reduce water availability, pushing the communities to change their latrine models if they want to maintain their new sanitation practices.

Taking into account retrospective look we are taking, special attention has to be paid to these emerging challenges. Some of the most commonly found in the CLTS literature follow.

Related to environmental dynamics, droughts can make it difficult to flush and clean latrines, or natural events like rains or floods that may damage the latrines.

Challenges related to technological dynamics are latrines filling up, latrine designs that cause problems in the long term, lack of access to affordable hardware for repairing or moving up the sanitation ladder.

Social dynamics that can bring challenges to ODF abound. Some come from the outside, for instance the arrival of new families or temporary labours to the village, the increase of passers-by (travellers, pilgrims, etc.), major social events like markets or public functions. Others are more internal, like extended families separating and building new houses.

Permanent reversion to open defecation generally happens when one or more of these challenges are coupled with a decay of motivation of the community, and thus of the efforts to maintain ODF status.

Framework for understanding sanitation sustainability

In this section, I have reviewed the normative and dynamic dimensions in sanitation sustainability, as per previous works related to CLTS. Then, I have elaborated on them in order to capture them in a framework; the lens through which to look at the sustainability of sanitation at the community level. The following figure –inspired in previous one from the PA– synthesises that framework graphically.

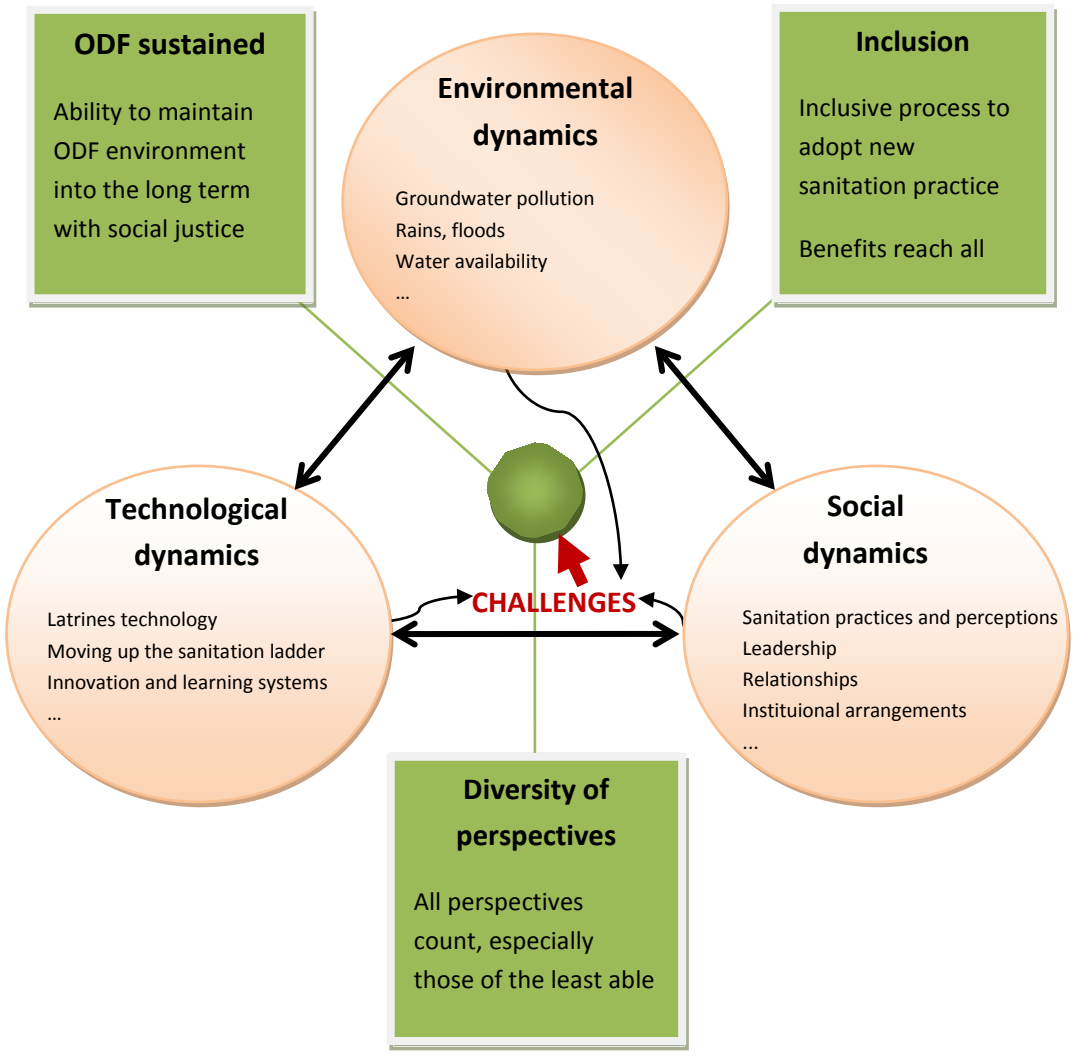

Figure 9: Normativity and dynamics in sanitation sustainability
Adapted from (Mehta, Marshall et al. 2007)

The green squares portray the concept of sustainability, as normatively described earlier. It includes the maintenance of an ODF environment, as well as increased social justice, that is, with inclusiveness in the process and in the benefits, and taking into account the diverse perspectives, especially those of the least able. The circles represent some of the relevant social, technological and environmental dynamics that shape the process. These interacting dynamics will affect sanitation sustainability throughout the process, from the initial context situation disrupted by the interventions, to the post-intervention stage, still subject to new dynamics that challenge sustainability.

3.5. Understanding policy processes in sanitation

From policy analysis to policy process analysis

As stated before, the use of the PA in this research involves a specific understanding of sustainability (addressed in the previous section), as well as paying attention to the policy processes that shape the interventions studied, which I discuss in this section.

It is nowadays widely acknowledged that questions of socio-environmental sustainability "are fundamentally political questions" (Swyngedouw, Heynen 2003, p.910), especially from the perspectives put forward by environmental justice movements and the political ecology approach.

But including policy under the lens of analysis is even more appropriate considering the fact that the interventions studied take place in the wider setting of a decentralised programme such as the Total Sanitation Campaign. The benefits of decentralised public policies rely on the better quality of specific information available at the local level, on increased public participation and on the incentives of local decision makers for responding to local demands (Galasso, Ravallion 2005). Thus, the underlying assumption goes, decentralisation enables bottom-up planning and implementation, which are pre-requisites for meaningful, rapid and sustained development (Giné, Pérez-Foguet 2008).

However, evidences show that decentralization does not necessarily bring about increased participation and accountability (Blair 2000), and effects on poverty reduction are not straightforward, either (Lanjouw, Ravallion 1999). This is mainly due to specific institutional arrangements and power relations, including central governments trying to retain control (Ribot, Agrawal et al. 2006), lack of human and financial resources, corruption and patronage, lack of opportunities for the poor to participate and powerful community groups capturing resources (Blair 2000, Ribot, Agrawal et al. 2006, Galasso, Ravallion 2005, Steiner 2007).

The framework I develop in this section, while not drawing on the decentralisation or the political ecology literature, addresses most of the issues they raise.

But before setting up that framework, a question that arises is: How do I understand **policy**?

Historically, development theory and practice has been "strangely ignorant of politics" (Duncan, Williams 2010, p.4). Development was much related to having enough funds to make the 'right' and expert-determined interventions. All the different paradigms since the 1950s have embodied an ultimately technocratic view of development, not addressing the central role of politics (Duncan, Williams 2010).

Coherently, from a conventional perspective, policy is seen as a linear and top down process in which rational decisions are taken by those with authority and responsibility for a particular policy area (Wolmer 2006, McGee 2004). These decisions usually take the form of statements or formal positions on an issue, which are then executed by the bureaucracy (Keeley, Scoones 2003). There are thus two distinct phases, formulation and implementation (McGee 2004).

In the first –formulation– policy makers initiate the process by identifying a problem, on which expert researchers then gather and apply knowledge that is statistically representative, generalised, technical and quantified. The problem identification and information gathering are the preparation to the decision making moment, the pivotal point between the two phases (McGee 2004).

The second phase –implementation– is thus a separate activity that begins once policy decisions have been made. Responsibility is handed over from the expert policy-makers to implementers whose task is to put the decision into effect (Wolmer 2006, McGee 2004).

This conventional view has shaped and shapes most of the development policy analyses in the past century, done from a technical perspective. Typical issues explored would be, for instance: Did the experts make some mistake in the policy design? Are there sufficient funds available? Is there enough capacity at the implementation level?

Thirty years ago, studies with a different perspective on policy started flourishing (Hill, Hupe 2002), but is has been in the 2000s that this conventional view of policy has been clearly challenged, prortraying it as "patently far removed from real life" (McGee 2004, p.7). Its underlying assumptions have been largely criticized. For instance, the presumption of rational and technical behaviour on behalf of decision makers (Keeley, Scoones 2003) and the idea of policy –especially implementation– being an administrative value-free exercise (Wolmer 2006). Despite years of critiques, however, the conventional view is still prevalent in policy, development and political circles (McGee 2004).

Thus, critics keep pointing out the need for policy analysis to unpack policy, open up the programme black box and analyse the comprehensive policy process (McGee 2004, Love 2004), which they understand as a broad course of action and interrelated decisions; an iterative and complex process. Technical experts and policymakers are considered to co-construct policy, generally playing down unknowns and presenting singular solutions. Thus, many times other perspectives and knowledges are delegitimised and excluded–mostly those of the poor and marginalised. However, there is a plurality of agendas and points of view on the problem and the pursued goals (Wolmer 2006) and no optimal solutions exist. Therefore, negotiation and contestation will rise, be it in a more explicit (e.g. public debate) or more subtle way (e.g. resistance in the implementation). All these are integral part of the policy process.

There are also nuances among those viewing policy as a process; some focus on negotiation and bargaining while others emphasize discourse or on agency (Keeley, Scoones 2003). Actually, different disciplines or even authors articulated various frameworks for analysing policy processes from a non-conventional perspective. According to Keeley and Scoones (2003) there are three broad approaches to understanding policy processes.

One approach, related with political science and political economy, sees policy change as the result of interactions between different groups with differing political interests. These groups are built upon different fault lines, for instance, class, ethnicity, interest groups, parties, bureaux, etc. Their behaviour and beliefs regarding a policy issue reflect their particular interests. Policy is essentially about processes of bargaining and competition between these groups. Different trends within these approaches give more emphasis to specific actors or networks, e.g. state actors (Grindle, Thomas 1991, Hill 1997).

The second approach, coming from anthropological perspectives, looks at discourse as the main element shaping and guiding policy problems and courses of action, putting knowledge and power at the centre. The discourses are powerful frames defining the world in certain ways, and thus excluding alternative interpretations (Schram 1993, Apthorpe 1986). They are larger than the discursive practices of identifiable actors, emanating also from broader discourses and habitual practices. Policies often conceal values and options behind neutral language, obscuring assumptions and unknowns. They many times take the form of narratives, or cause-effect tales, which are reiterated and can become embedded in the institutions (Kaplan 1990, Roe 1991).

A third approach takes a distance to more structural analyses and emphasizes the agency and practices of individuals and groups of actors, connected in networks, alliances and coalitions of different sorts. Actors –from the ministry to the field– have a discretion and choice in their actions (Giddens 1984). Those wanting to influence policy, try to enrol other actors with similar perspectives or complementary interests in their project and create coalitions of influence that can present a credible and legitimated alternative (Haas 1992, Kingdon 1984).

Keeley and Scoones consider that to a greater or lesser extent, understanding policy processes comes as a result of looking at the intersection of these three overlapping perspectives. Thus, they integrated elements these approaches, building an eclectic framework for analysing environmental policy processes (Wolmer 2006) that has also been integrated in the PA (Leach, Scoones et al. 2010, p.129), as it is coherent with the vision of sustainability it proposes, involving normativity and diversity of perspectives. Coherently, I also use the framework to inspire my analysis of the policy process. First, I will describe it and then interrogate its applicability to sanitation and compare it with existing policy analysis in the sector. Finally, I describe the final theoretical framework to understand policy processes I use in this thesis.

A framework: narratives, actors and interests

The integrated framework has three relevant spheres that relate to the three sets of approaches cited earlier: Discourse/Narratives, Actors/Networks and Politics/Interests (Leach, Scoones et al. 2010, Wolmer 2006). The first are the entry point of the framework, but instead of focusing solely on discourses, attention quickly shifts to the actors and coalitions that are built behind the narratives and to the interests and politics around them. The description of the three spheres follows.

Policy narratives are linked to knowledge and discourse. Narratives are simple stories about policy change with a beginning, a middle and an end. They first describe events or define problems in certain ways, then elaborate its consequences and end outlining the solutions. In a more 'PA language', it could be said that narratives often start with a particular framing of a system and its dynamics (diagnosis) and then suggest a pathway through which these should develop or transform to bring about a particular set of outcomes, finally providing a set of measures to take (interventions).

Dominant narratives have strong influence on policy decisions and people's perception about reality. Naive narratives, despite (or perhaps because of) the fact that they simplify complex issues and processes, tend to gain more authority and become dominant, persisting at the expense of others and hence having more bearing on the policy process. They will often be contested –and eventually overthrown– by more or less marginalized alternative policy narratives that frame problems and solutions in different ways.

Policy actors involve individuals and institutions from state (bureaucracy and government), private sector, donors and civil society (media, researchers, NGOs, CBOs) across different scales from the local to the global. These tend to amalgamate around shared identities and coalesce around a common policy narrative, forming networks or alliances.

These networks have an important role in spreading and maintaining narratives through persuasion, influence and power relations, using mechanisms such as publications, events, education, funding... Thus, valid knowledge is established, orthodox practice is reinforced and priorities are set. And very often, dissenting or unconventional perspectives from competing actors are excluded. However, the fact that actors have agency allows them also to counter these processes. Through similar mechanisms, they can shift alliances, try to change narratives or gradually increase the profile of marginalized perspectives.

Policy interests, even if not articulated through networks or explicit narratives, strongly shape policy processes. Actors with power and authority over the policy process at its different stages tend to steer the policy so that it suits certain interests, potentially affecting the intended effects of the policy. These interests can be displayed in more or less explicit competition between groups (different ministries, interest groups) during the decision making process, trying to influence it, or affect more subtly the implementation process. Typical interests are those of regime authorities to remain in power, social concerns, bureaucratic permanence, allocation of resources, fear of change, corruption, control over policy arenas, etc.

Interests might be best served by certain narratives or simply by political *status quo*. When interests of several actors align with the dominant narrative, it can become perpetuated. Policy is then set out as objective and value-free and termed with technical language, hiding its political nature.

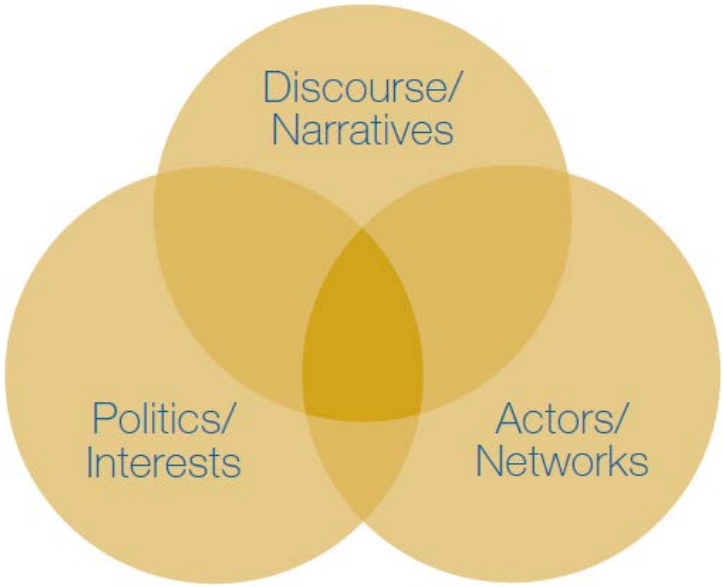

Figure 10: Spheres of interest in policy processes
(Wolmer 2006)

The interplay between these three overlapping spheres –narratives, actors and interests– constrain the policy spaces of the actors involved in the policy process at the different levels, that is, they limit the actors' room for effecting policy change. From within a given policy space, a specific policy pathway will be taken; certain priorities will be set and certain interventions will actually take place. Those trying to steer the policy towards an alternative pathway are limited by the available policy space. If networks of actors are tightly formed around the dominant narrative, and this narrative preserves their interests, the policy space will be minimal. High levels of policy inertia are to be expected, with the dominant pathway easily resisting any amount of rational argument or evidences of the shortcomings of the policy.

However, policy processes are dynamic; new actors emerge, others change over the time, contexts and circumstances evolve, too. So, new arguments can enter the debate, networks can enlarge or reshuffle, generating possibilities for counter-politics and enlarging the policy spaces. They can be opened up through different strategies, allowing alternative narratives to be acknowledged and thus enabling policy changes towards new pathways. For example, when the articulation of the dominant narrative weakens, alternative narratives can be put forward, trying to get other actors enrolled and create a network around them. Generally, the enlarging policy spaces won't quickly allow big policy shifts, as the actors, interest and narratives –even if declining– will still constrain the amplitude of the changes. In other words, the resulting policy pathway will generally be subject to tensions and negotiation, and therefore not fully coherent with the narrative put forward by those wanting to change the policy.

Applicability to sanitation policy processes

The framework has been previously used for other environmental issues, so it could presumably be applied to sanitation. However, it is important to consider the differences between the rural sanitation sector and other domains in which the framework has been used and see whether these undermine its applicability.

The main difference is the low profile of sanitation for most of the public, especially in developing countries (Harris, Kooy et al. 2011, p.23). Private sector shows generally little interest in sanitation, as they don't see it as a profitable area. Due to the taboo surrounding shit, the general public is often indifferent about the issue, and not many civil society actors get involved in the policy process around sanitation. Similarly, governments many times neglect the sector and focus their efforts on other areas. As a result, the number and plurality of actors and their networks is comparatively low. This lack of interest can potential result in small policy spaces (e.g. lack of resources to sanitation), but it can also make it easier to gradually facilitate the opening up and expansion of these spaces (e.g. opposition to policy changes might be low).

Probably related to this, there is a second difference, namely that many times there is consensus (at least apparently) around the framing of the problem of sanitation (open defecation is bad) and the goal sanitation policies should pursue (eliminate open defecation). As a consequence, differences between narratives are more nuanced and assemble around the causes of the problem (why is there persistent open defecation) and on the pathway to reach the policy goals (what is the adequate intervention and by whom).

These differences, though relevant, do not seem to undermine the suitability of the framework, which seems to have the analytical power to incorporate them.

We can also apply the framework as a sort of pilot to what we already know about the sanitation policy process in India, in order to check this analytical power to the case studied. As explained in the previous chapter, the practice of sanitation policy in India has not suffered major changes for the last quarter of century, in spite of the magnitude of the country's sanitation crisis. Attempts of substantive policy turns have been generally undermined in the implementation process before reaching the field, probably with the only –partial– exception of the NGP awards scheme. This policy inertia has been reflected in the unsuccessful attempt to introduce CLTS at the national level, due to strong opposition. The introduction was only feasible at lower administrative levels, where committed champions at the administration brought it forward, with the support of an external agency and mostly resulting in mixed approaches.

If we reframe this process in the language of the framework, it could be said that the national sanitation policy space is small and the dominant pathway is very stable. Thus, introducing alternative pathways like CLTS becomes difficult. WSP –and other actors more recently– attempted thence to open up policy spaces at the state or lower levels, using exposure visits, trainings, advocacy, etc. They formed local networks around the alternative CLTS narrative with champions at different

administration levels, who effected policy changes in the area under their responsibility. However, interests and narratives of the remaining actors and networks kept constraining these policy spaces – though to a lesser extent– and thus affected the degree to which the policy pathway could be coherent with the CLTS narrative.

For cases like this, where a policy process has intrinsic elements that make policies invariably take a particular shape, it has been said (Wolmer 2006) that technical policy analysis cannot make much difference. Therefore, analysing the sanitation policy from a process perspective is very relevant. The previous paragraphs show that the framework can be applied to the topic researched and that it has explanatory power. It can help uncover the contestation and negotiation around the introduction of CLTS; how the different narratives were supported by different actors and networks, as well as the role their interests played in the extent to which policy change was possible.

Literature on sanitation policy processes

In addition to looking at the specificities of sanitation and of our topic, it is also interesting to compare this framework with the ones already used for analysing sanitation policy processes. This comparison helps identify potential gaps and strengths of the framework.

The sanitation sector has been recurrently analysed from a technical perspective (WSP Sanitation Global Practice Team 2011, p.8). Only in the late 2000s, policy processes around water and sanitation started gaining investigative attention, following the growing interest of the international community in understanding these issues at the sector level: “The international community increasingly recognises that the governance of a sector and the way in which politics and institutions interact have a critical impact on how services are delivered” (Harris, Kooy et al. 2011, p.2).

Initially, the main trend was to conduct governance assessments. These analyses normatively appraise performance against certain criteria of what is considered the good governance of sanitation services, often taking the form of gap analysis. They are considered to be useful to identify the obstacles or what is lacking for more effective sanitation interventions and services (e.g. participation, transparency, or accountability), but to fall short in exploring the underlying processes behind these obstacles, i.e. the root causes of why such challenges exist (Harris, Kooy et al. 2011).

Consequently, there has been an increasing focus on understanding institutional, political and historical contexts that influence decision-making. This has crystallized in a move towards political economy analysis in the water and –later on– sanitation sector. Political economy analysis is concerned with the interaction of political and economic processes; how power and resources are distributed between different groups and through which processes these relationship are built and contested over time. It gets beneath formal structures, revealing underlying interests, incentives and institutions that can enable or frustrate change (DFID 2009). Instead of comparing governance performance against certain pre-established criteria, political economy analysis departs from the existing context and is thus considered to allow more feasible solutions to emerge. There are several frameworks and types of study in political economy analysis, but all share three core concepts: broad

structural features, formal and informal institutions and actors at the different levels, and their incentives (Harris, Kooy et al. 2011, p.45).

There have also been combined analyses, applying dual frameworks that allowed addressing issues of both governance and political economy. However, Harris, Kooy and Jones (2011) consider that they remain too broad in their focus and conclusions, and the relevance of the specific recommendations delivered is compromised.

The literature on water and sanitation policy processes is scarce and attempts to synthesise findings and compare frameworks are very recent (Harris, Kooy et al. 2011, p.2). Only a couple of studies focus specifically on sanitation policy processes (Krause 2007, WSP Sanitation Global Practice Team 2011), despite the differences between the sectors. The most relevant one is a recent work of WSP Sanitation Global Practice Team (2011) on sanitation investment and improvement of service for the poor, with one of its case studies is in India. As conceptual framework it uses political economy analysis tailored to sanitation issues. The framework has 3 levels of analysis. First, the country context, which refers to its socioeconomic, political, cultural, and historical characteristics, as well as to its development trajectory and to processes within the sanitation sector. Second, the sector arena, comprising the relevant actors and their economic and political interests regarding sanitation, along with the institutions that shape their relations and behaviour. Third, the sector process, dealing with change opportunities and interactions in the sanitation arena over time (through bargaining, communication, debate, coalition building, participation or transparency).

As a whole, this scarce literature body does not have a single framework of analysis, but there is a perceptible trend towards political economy analysis. When compared to the framework used in the PA –narratives, actors and interests– two main differences stand out.

Firstly, while in the PA the narratives are taken as the entry point, political economy does not explicitly include them. As a consequence, there is a risk to view actors' interests as the only explanatory factor of their behaviour, overlooking the role of knowledge and discourse in the policy process. Similarly, it might lead to a monolithic and non-normative perspective on the policy, downplaying the relevance of contested perspectives about the problem and the policy. This difference does not stem from an adaptation of political economy analysis to the specificities of the sanitation sector, but rather from its historical analytical focus and disciplinary tradition. In addition, as this thesis studies the introduction of CLTS in settings with a very different policy, the focus on narratives is very important for this research and constitutes an added value of the PA framework.

Secondly, political economy analysis gives an explicit preeminent role to the broad context. In most of the water and sanitation related studies reviewed, country context is one of the three stages proposed. I consider that the context is a very important element for understanding sanitation policy processes, as it helps putting the process studied in a broader picture and allows thence identifying relevant non-obvious factors. It cannot be said that the PA framework overlooks the role of the context in policy processes. Actually, it is clearly present in some of the studies that have applied it (Keeley, Scoones 2003, p.99). However, it is not explicitly enough included in the framework, which might lead to neglecting it.

Framework for understanding sanitation policy processes

From what has been discussed in this section, I come to the conclusion that the PA framework to analyse policy process can be applied to the topic researched and that it has indeed a strong analytical power. I therefore adopt the framework, with some minor modifications that stem from the comparison with other frameworks and from the consideration of its applicability to the topic.

Firstly, I feel that the label 'actors' does not adequately represent its sphere. Also, interest and narratives can be seen as related to different actors, so what distinguishes the sphere of the 'actors' is their agency, leading them to form coalitions and try to change policy. I have thus re-labelled it as 'agents', which better reflects this aspect and lessens the confusion. In the analysis, I will use the term agents to designate actors that have played a key role in reshaping the policy process.

The second modification comes from my view that the importance of the context should be more explicitly acknowledged in the framework, as happens in political economy analyses. Therefore, and following what other scholars did using a similar framework (McGee 2004, p.23), I have added the context in the background of the figure with the three spheres representing the approach (see next figure).

Finally, as the concept of the policy space has proved to be very useful for understanding the processes studied in this thesis, I have added them to the figure, along with arrows that illustrate that it results from the interplay between narratives, actors and interests. Additionally, the superposition of shapes tries to capture the dynamic and multi-level nature of the policy process, especially relevant for the present research.

The following figure synthesizes the slightly adapted PA framework for analysing the policy process I use for the introduction of CLTS in India. The fact that the three spheres are not overlapping is an undesired but geometrically unavoidable consequence of the inclusion of the policy spaces.

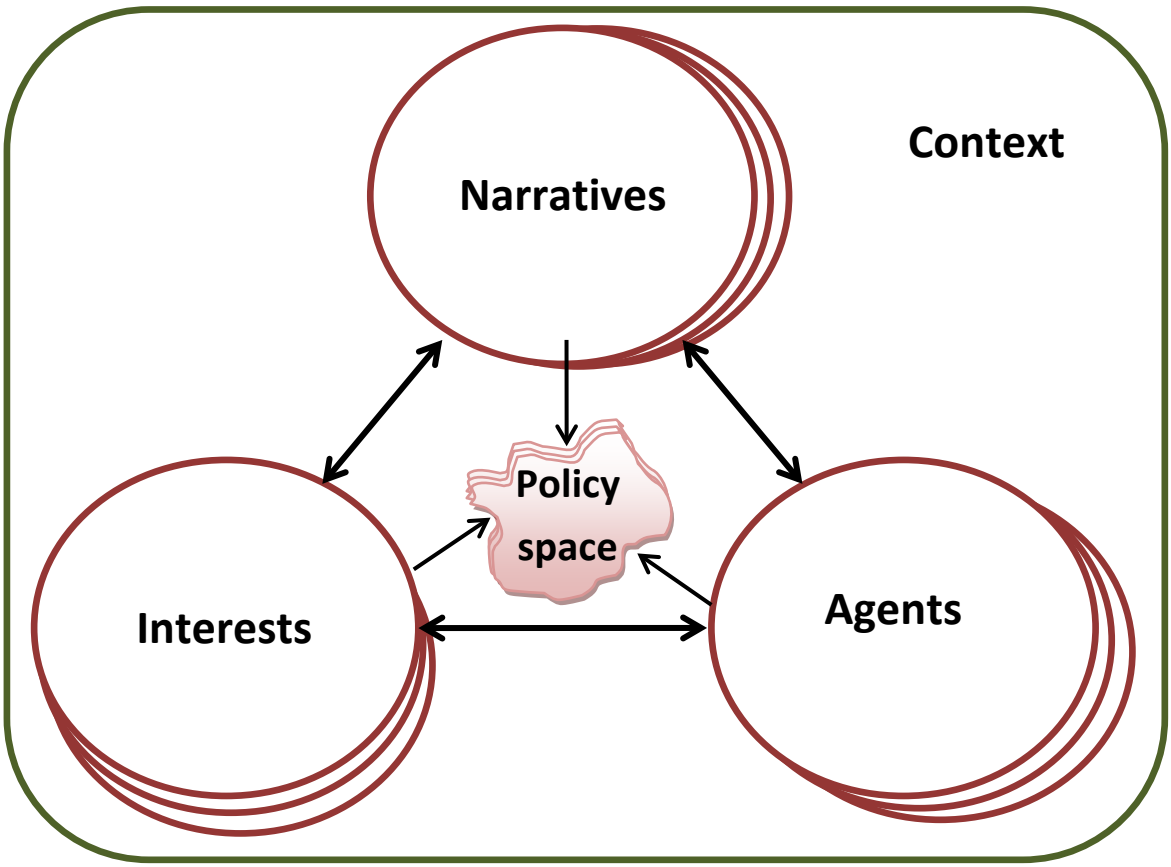

Figure 11: Elements of interest in policy processes

3.6. Research questions

In this chapter, I have presented the theoretical framework of the thesis, which is inspired in and adapted from the Pathways Approach to sustainability. It constitutes the lens through which I try to respond to the aim of the research, which is to explore the ways in which the introduction of Community-Led Total Sanitation in Madhya Pradesh and Himachal Pradesh contributed to sustainable sanitation. Coherently with the structure of the framework, to contribute to this aim requires responding to two interlinked research questions:

How did the policy processes around the introduction of CLTS shape the resulting sanitation interventions?

To what extent and through which dynamics did these interventions contribute to sustainable sanitation?

The framework for understanding policy processes described in the previous section and captured in figure 11 helps me analyse the first question, while the sanitation interventions are conceptualised through the categorisation outlined in section 2.4. The ideas around sustainability described in the sections 3.3 and 3.4, and synthesised in figure 9 are the building blocks for the analysis of the second question.

4. Research methodology

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4.1. Outline of the chapter

After the theory chapters, which finished with the research questions, this chapter presents the methodology, that is, the strategy and tools used for gathering the evidences related to these questions.

The next section is a brief description of my perspective on research, focusing on the research cycle and on the concept of rigour. The next section deals with what I have called the methodology foundations, including a positioning and contextualisation of the methodology, a short mention of the literature review phase and a description of the field research strategy, elaborating on the selection of the case study areas: Khandwa district (MP), Mandi district (HP) and Budni block (MP). I describe the research tools in the subsequent section, organised from the national to the local level, with a strong focus on the in-depth study at the Gram Panchayat (GP) level. In the subsequent section, I describe the phases of recollection, analysis and dissemination, while in the last section I reflect on the ethical implications of my research, about the messiness of the research process and its limitations.

4.2. What is research?

The research cycle

My conception of research is inspired in the work of Sumner and Tribe (2008). The research cycle is considered to consist of several steps that could be grouped in six phases: problem, design, recollection, analysis, interpretation and dissemination. '**Problem**' includes the definition of what is to be researched, the review of the literature, the elaboration of the analytical framework and the formulation of the research questions. '**Design**' refers to setting up the research strategy, including the choice of methods, the sampling strategy and the data to be collected, as well as the preparation of the different research tools. '**Recollection**' is the actual gathering of information. '**Analysis**' involves processing the data collected and extracting the relevant information they contain. '**Interpretation**' is the phase where the evidences are articulated and compared in order to come up with relevant conclusions and recommendation. '**Dissemination**' involves preparing materials or events for sharing the findings with the concerned actors. I (Hueso, Cascant 2012) like to add **reflexivity** as an overarching phase, in order to stress that it has to pervade the whole research process. It refers broadly to the need of reflecting and being critically aware of the epistemological perspective, the researcher's positionality, the research quality, limitations and ethical dimensions.

Rigour

Whether a research is 'good enough' is an issue of paramount importance. It is generally called 'validity', although some prefer 'credibility', 'rigour' or, simply, 'quality'. There might be some consensus in the positivist quantitative tradition on what it implies, but it remains a hotly debated issue in social sciences in general, and in development studies in particular, which different disciplines preferring different sets of criteria. Sumner and Tribe (2008, p.112) focus on the concept of '**rigour**'. Being rigorous while doing research is to be systematic while following the logic stages of the research cycle, described in the previous subsection. Thus, the research problem has to be thoroughly described, and research questions should be concise and clear. Methodology and tools need to be appropriate to address these questions. The evidences should be consistently analysed and there must be coherence between these and the conclusions. Finally, the process requires transparency, that is, the research process must be described in detail so that it can be traced, and limitations have to be acknowledged. In addition to this, I consider that the participation and the discussion of the findings with the 'researched' also contribute to the quality of the research. These are the ideas I have tried to follow in order to make my research 'as good as possible', and which I elaborate in the following sections, the next one describing the main elements that constitute the basis of the methodology.

4.3. The methodology foundations

Positioning the methodology

The epistemological position of a research is key for understanding its methodology. Nevertheless, I have described it in the first chapter instead of in the methodology, as is the usual practice. The reason behind this is that the epistemological perspective strongly informs the research at all its stages, including the literature review and even more the analytical framework. Therefore, I believe it can be useful for the reader to learn about it just at the beginning.

In any case, to sum it up briefly here, the research is epistemologically rooted in the realist tradition: there is an objective reality, but the researcher –a dependent observer– cannot establish the truth about that reality, but only describe it (Sumner, Tribe 2008, Molteberg, Bergstrøm 2000). This epistemological position is shared by the Pathways Approach, which talks about the systems as objective realities that are perceived subjectively by each actor or group, according to their particular framings. My personal stand as researcher, favouring practical and emancipatory cognitive interests, is also relevant. I understand research as a co-constructed learning process oriented to making contributions to knowledge and also to action.

As said, this perspective has consequences on the research methodology and its preparation.

Firstly, I try to observe both the material dimensions and the interpretations around the sanitation interventions, in order to understand and describe them. As a consequence, I combine methods from the so-called quantitative and qualitative traditions. Although combining methods is said to potentially lead to inconsistencies, strict disciplinary boundaries have been questioned in the social sciences and especially in development studies (Hueso, Cascant 2012, Mayoux 2006). But mixed methods are even more justified in a sector like sanitation, where relevant insights are need from anthropology, technology, psychology, medicine, etc. Nevertheless, the lack of a clear discipline backing the methods used makes it even more important to describe the methodology thoroughly (sampling, data collection, type of data, analysis) and critically reflect on its rigour and biases (Sumner, Tribe 2008).

Secondly, I intend that my findings are relevant for both theory and practice. This entails engaging and establishing 'dialogue' both with the existing literature on the topic and with the actors involved in the experiences researched, in order to locate the theoretical and practical knowledge gaps I can contribute to fill. The research design has to have a participatory component and to be flexible in order to incorporate relevant issues that emerge throughout the process or that are raised by local actors that could not be contacted beforehand. It is important to be aware of potential tensions between flexibility and methodological coherence and between local and theoretical relevance and find the needed balance. As part of the 'dialogue' mentioned at the beginning of this paragraph, it is important to always bring back the findings of the research: to the theory by publishing the results, and to the actors involved through feedback sessions and specific reports or other materials. The engagement

with the actors involves ethical and political considerations –with whom? for whom?–, which are discussed at the end of the chapter.

Apart from the philosophical aspects, practical constraints also shaped the research strategy. The 4 years doctoral time-frame, the 6-month field work period and being a lone researcher for most of the time were the main factors. Another important factor is the physical and cultural distance from the research area, including the need of translation, which obviously affects the kind of research I could do.

Literature review and theoretical framework

The literature review and the theoretical framework precede and also affect the research design. That is why their main elements are summarized in Chapter 2 and Chapter 3. But they also have a methodological dimension themselves, so it is important to define them and explicit the strategy used in these steps.

The **literature review** is a way of learning about the broad theoretical and methodological debates and approaches relevant to the theme researched, as well as about more practical and context-specific issues (Meth, Williams 2006, p.211). Theories, in short, are ways of viewing the world, which are based on simplifying assumptions, allowing an understanding of the phenomena studied within the complexities of the world (Sumner, Tribe 2008, p.84). In other words, the literature review is intended to provide critical elements for building a theoretical framework through which to approach reality. It is thus the basis for the identification of relevant information, for the way it has to be collected and for the analysis and processing of this information. A good literature review and robust theoretical framework are essential pieces of the research, and they have to be thoroughly described, making clear the assumptions and exclusions it makes.

The broad themes I have addressed in the literature review are sanitation and sustainability. Regarding sanitation, I have focused especially on CLTS and on India-related works. In respect to sustainability, I have laid the stress on the Pathways Approach, especially on the dynamic and normative dimensions of its concept of sustainability and its perspective on the policy processes around environmental issues, which constitute the foundations of the theoretical approach. Notwithstanding, I have tried not to neglect general debates on sustainability and policy analysis and locate the literature discussed in the wider picture. Overlaps between the different topics have been thoroughly explored too, for instance the concept of sustainability in sanitation. Regarding the methodology, I have reviewed different works on development research, as well as studies more focused on sanitation, policy processes or sustainability.

The literature search strategy has been multiple. It includes systematic keyword searches through web browsers and academic databases, a 'trail-following' sequence based on the bibliographies of relevant publications, works recommended by colleagues and experts and searches in websites of agencies, NGOs and governments, etc.

The insights from the literature review have informed the **theoretical framework**, that is, the lenses I use for looking at sanitation approaches, sustainable sanitation, and policy processes. The Pathways Approach is the overall theory I have drawn on for my framework, but I have adapted it to the thematic and practical specificities of this research.

However, it has not been a one-way deductive process, where theory determines and restricts how we look at the reality. In fact, as expected (Meth, Williams 2006, p.218), the literature review has been an ongoing stage throughout the process, as issues emerging from the field have demanded discussing specific literature bodies related to them. Also, these insights from the field challenged much of what I had read and made me rethink and adapt my framework (see the research backstage subsection for details), helping fill gaps in the literature (induction).

As said, the theoretical framework shaped, along with the research questions and the analysis, the methodology of the field research, which I move on to describe now.

Field research strategy

Three areas were selected as case studies in order to answer the research question about the ways in which the introduction of CLTS in Madhya Pradesh and Himachal Pradesh leads to sustainable sanitation.

I take three case studies in order to be able to make a detailed examination of them and get a deep understanding of the situation and processes going on in each of the specific contexts in which they happen (Flyvbjerg 2006). This primarily qualitative case-based perspective is best indicated for a research like this, dealing with emergent and complex issues.

There are two realms of analysis. Firstly, the policy process, where the aim is to unpack the policy process around the introduction of CLTS and understand how the resulting policy pathway (what is finally implemented) materialises. Secondly, the process and outcomes on the ground, where the intention is to comprehend the effects of the interventions and their contribution to sustainable sanitation (as framed in the previous chapter).

Two cases, namely Khandwa district in Madhya Pradesh and Mandi district in Himachal Pradesh belong to WSP extensive training strategy for scaling up CLTS (see details in the previous chapter) and are considered the best performing districts among those targeted in the state. The third case belongs to the more recent block-focused strategy. It is Budni block in Madhya Pradesh, where UNICEF has pioneered this strategy. With these three cases, insights from the different strategies used in India could be gathered, contributing to understand how these play out in different contexts. The selection of the cases is explained later in further detail.

For each case study, research was conducted at several levels. First at the national and state level, relevant documents were reviewed and interviews were held with key informants. At the case level, documentary review and interviews were complemented with visits to several GPs in order to get a general picture of the situation. The best performing Gram Panchayat (GP) of each case was selected

for an in-depth study that was intended to give first-hand evidence on the ground realities and to allow a deep understanding of the undergoing processes. It combined quantitative and qualitative tools. Some comparative visits to neighbouring villages were done after the in-depth study to assess how that top-performing GP compares to the rest of the GPs in the area. Feedback sessions were held at every level in order to share and contrast the findings. A detailed account of the selection criteria follows, with the research tools used described in the next section.

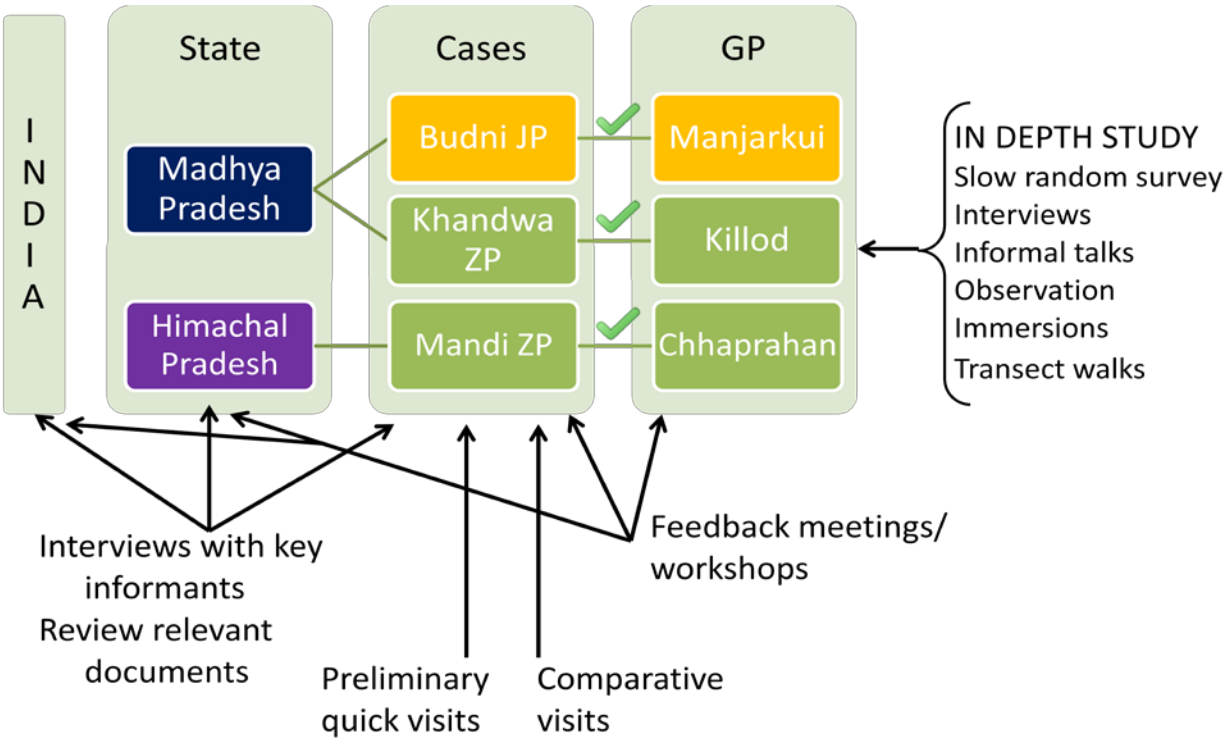


Figure 12: Research strategy

Cases sampling

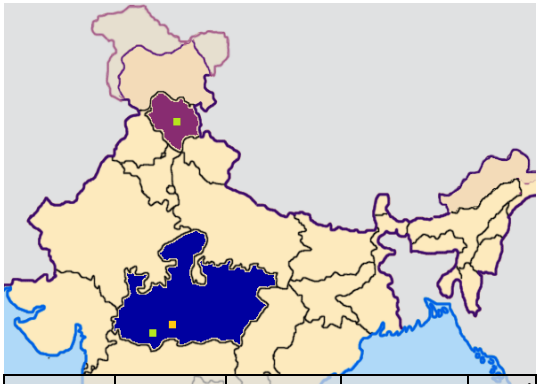
After this overview of the methodology, it is important to make sense of the choice of the cases in order to fully understand what the methodology tries to achieve.

At a broader level, doing this research in India is justified by the magnitude of India's sanitation crisis, the failure of its sanitation campaign and the potential and challenges of CLTS there, as described in the second chapter. The two states where the study is conducted are relevant for the research topic; Himachal Pradesh (HP) as a successful experience of introducing CLTS and Madhya Pradesh (MP) as a more challenging one. These states are also among those early targeted by WSP with its extensive training scaling up strategy. This allows looking at how the strategy works in different contexts and at long term sustainability issues. In addition, the experiences have been closely monitored by WSP (Rosensweig, Kopitopoulos 2010), and there is thus more availability of secondary data. The state contexts are very different to each other, fact that has to be considered carefully for the discussion, and mediate comparisons between them.

Finally, within the states, I selected the three case studies through strategic sampling, namely critical sampling. For few cases, it is always better to use strategic sampling (Flyvbjerg 2006), as random sampling needs a certain number of cases to result in a representative sample. But in our study, we are not trying to obtain the 'average' contribution of CLTS to sustainable sanitation, but rather seize what is the potential of CLTS and understand the 'whys' and 'hows' in the existing processes. Therefore, it makes sense to look there where the introduction of CLTS was more successful. Even more taking into account the obstacles generally faced, due to a challenging context and a very different sanitation policy in practice nationally, and the fact that these challenges have been explored to a certain extent.

Khandwa and Mandi are considered the districts of MP and HP (respectively) where the introduction of CLTS through the extensive training strategy was more successful, in the sense that the approach was adopted and the outcomes are relatively good. They are critical cases in the sense that what we observe there will show the maximum that the strategy can yield in MP and HP. The selection of the districts was based on preliminary evidences from secondary data and from interviews with concerned WSP staff and government officers.

The third case, Budni block (MP), belongs to the more recent block-focused strategy. UNICEF had pioneered nationally the strategy there at the end of 2010, few months before the field research. It is – as far as I know– the first experience with this strategy and thus the only one that had run long enough to allow researching its outcomes, so that was the determinant selection criterion. Although this impedes having relevant insights regarding long-term sustainability, the uniqueness of Budni as a trail-breaking experience justifies its inclusion as a case study, as it represents an enormous opportunity to learn, which is considered of primary importance for selecting a case (Barrett 2009, p.6).



Case	State	Strategy	Supporting agency	Initial year
Khandwa district	Madhya Pradesh	Extensive trainings	WSP	2006
Mandi district	Himachal Pradesh	Extensive trainings	WSP	2006
Budni block	Madhya Pradesh	Block-focused	UNICEF	2010

Figure 13: Case studies marked in colours on the map of India
Adapted from (World Geographics 2012)

A non-random sample does not necessarily imply impossibility of generalization. In fact, it is considered that strategic sampling "may greatly add to the generalisability of a case study" (Flyvbjerg

2006, p.226). The cases need to be carefully chosen and have a clear logic. This does not apply so much to Budni block as it is the only case in its strategy, but it is relevant for Khandwa and Mandi districts. As said, these districts are considered to have performed best in their state regarding the extensive training strategy. This criterion implies that what is observed will be better than what happens in other districts. Exceptionally good (or bad) cases incorporate a bias, but they are also considered to activate more actors and more basic mechanisms and thus reveal more information and help clarify deeper causes (Flyvbjerg 2006, p.229). In addition, being conscious of the bias, it can be taken into account when generalising.

For instance, in the realm of the outcomes, if the contribution to sustainable sanitation proves to be poor in the case studied, it will be clear that the strategy faces serious hurdles in that state. On the other hand, if the contribution is good, then it will be important to collect more evidences in order to clarify whether the case is unusually good or just a bit better than other districts. In this study, these additional evidences come from secondary data, the state level interviews and exceptionally comparative visits to other districts if considered necessary. This was the case in Mandi: secondary data and evidences from field research in the neighbouring district of Bilaspur helped to see how Mandi compares to the rest of HP.

Regarding the realm of the policy process, the bias towards best performing districts needs to be taken into account, too, although two factors make it less relevant. Firstly, that the question related to the policy process is comparatively more exploratory and less evaluative. Secondly, that the policy process related evidences originate from the supra-case levels (national and state) as much as from the case and GP level.

4.4. Research tools

Once the foundations of the methodology and the overall research strategy are established, the research tools used have to be described in more detail. As outlined in the previous section, the field research took place at different levels –national, state, case and GP– and different tools were utilised in each of them. The tools are the same for the different case studies, unless otherwise stated.

National and state level

At the national and state level, I used secondary data and grey literature, along with interviews to key informants.

Secondary data include reports related to sanitation experiences of different organisations, as well as the online database from the TSC monitoring system. These sources were either not traced in the initial literature review or became relevant only during the field research. **Grey literature** includes unpublished reports or drafts of agencies involved in sanitation, materials recommended or facilitated by interviewees and searches in local bookshops regarding the context. Overall, secondary data and

grey literature served to reinforce the literature review and make it contextual. Topics addressed range from the broad context (history, development indicators, politics, social dynamics, political economy or climatic conditions) to more sanitation specific issues (sanitation coverage data, CLTS introduction strategies and outcomes, other sanitation experiences, etc.).

The **interviews with key informants** at the national and state level were semi-structured, that is, I followed a list of questions or topics to be addressed, but flexibly, addressing emerging issues and allowing interviewees to develop their responses and also bring up their own ideas and thoughts (Willis 2006). Key informants included government officers, staff from supporting agencies (WSP, UNICEF), sanitation-related consultants and NGOs, facilitation agencies, academics.

At the national level, the aim was to learn about the Total Sanitation Campaign, the main actors and their work, as well as the main problems or key issues of sanitation nationally. At the state level, the focus shifted to a great extent towards the experiences of introduction of CLTS. The interviews were also an opportunity to present the research to relevant actors.

At the end of the research, I held **feedback interviews** or meetings with those initially interviewed, especially those with decision making power or that had shown interest in the research. The aim was to share findings and crosscheck perspectives.

Case level

At the case level (district or block), I used the same tools described above (secondary data and grey literature, interviews and feedback sessions), with the focus more directed to the specific context and experience. Key informants for the interviews incorporated government officers involved in sanitation, CLTS trainers, facilitators and front line workers, along with the ones listed earlier.

In the case of Budni, being a smaller administrative unit and an ongoing process, it was possible to also organise a workshop with CLTS facilitators, too.

But the main tool I employed at the case level was the **preliminary visits**. I visited in several GPs in the case areas, in order to gain insights about the ground reality regarding the sanitation interventions. The idea was to get a general picture of the situation in the area.

As a consequence, the selection of the GPs tried to include all the variety of situations, regarding sanitation (good and bad situation) and different relevant context characteristics (size, settlement pattern, social fabric, etc.). In order to make the selection, I consulted secondary data (e.g. sanitation awards lists) and seek advice from government officers (e.g. asking them to rank the GPs according to a specific criteria). Different officers were consulted separately and some GPs were selected randomly from a list in order to triangulate and counter potential bias towards best GPs.

In Khandwa district, the GPs visited were from the blocks of Pandhana and Baledi, the two blocks where CLTS was effectively introduced. In Mandi, GPs visited were from the blocks of Gohar, Seraj and Bahl, which present very different geographical and socio-economic characteristics. In Budni, being a

block itself, the GPs visited were from the west half of the area, as only that part had been triggered by the time of the field work.

The visits to these GPs were brief (from 1 to 5 hours) and different tools were applied. For example, group interviews with the authorities or the sanitation committee members, observation of toilets in institutional buildings (schools or GP buildings) or in haphazardly selected households and transect walks to look for households without toilets, potential open defecation areas, as well as to establish informal talks. In the case of Budni, I could also make participant observation during triggering sessions, follow-up visits or ODF celebrations.

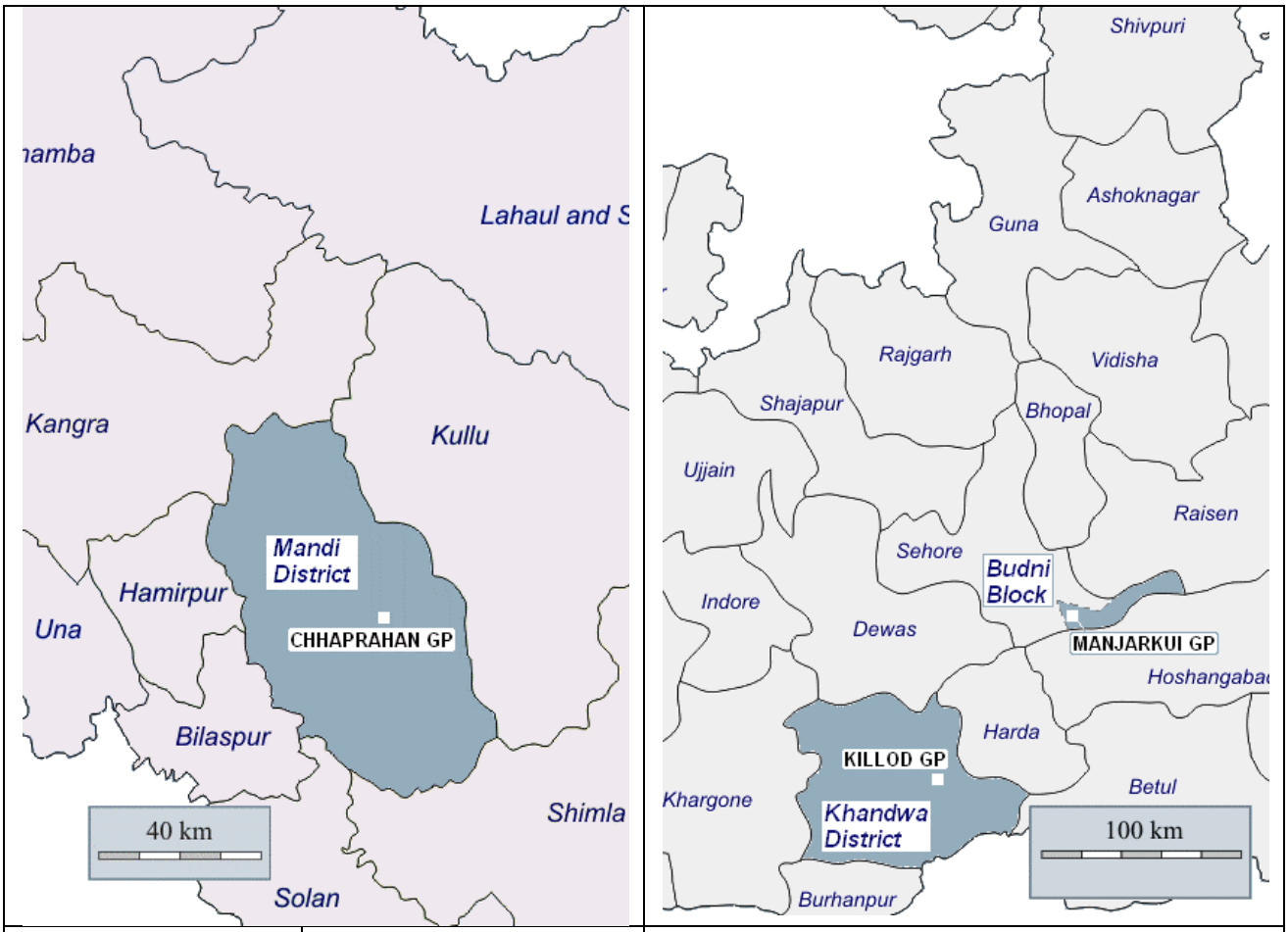
A secondary aim of the preliminary visits was to locate a suitable GP for the in-depth study and establish the contacts for arranging the visit. Details of the criteria for this selection are in the next section.

The in-depth study in the selected GP would potentially alter the perceptions of the 'general picture' gained with the preliminary visits. That is, after thoroughly researching one GP, the insights from the preliminary visits could appear flawed or incomplete. For these cases, I made subsequent **comparative visits** to one or two GPs (among those initially visited) in the area in order to clarify those insights. The objective was to establish more clearly how the GP thoroughly researched compared to the rest of the case study area in dimensions of interest. The selection of these GPs was instrumental to the cognitive needs I felt after the in-depth study. The visits were generally longer (1-3 days) and some of the tools of the in-depth research were applied, too, according to the issues of interest.

GP level in-depth study

I conducted an in-depth study in one GP in each case study area, somehow a case study within each case study. The aim was to immerse in the GP in order to observe social life as it unfolds and talk to people in a less artificial research situation (van Donge 2006, p.180), in order to gain a deeper understanding of the processes and perceptions from the people that actually 'experience' the sanitation intervention on the ground level.

The GP selection was done through critical sampling; the GP had to be among the best performing regarding the sanitation campaign. This 'good performance' was denoted by elements such as being ODF, having received the NGP or similar awards and presenting a high coverage jump during the campaign. Despite being among the best performing ones, the selected GP should not be unusual regarding context elements, but rather have an average profile. For instance, it should have a normal size, not be very rich, very small or too urban, and so on for any determinant characteristic in the area. These elements were gathered during the preliminary visits and interviews at the case level.



State	HIMACHAL PRADESH	MADHYA PRADESH	
Case	Mandi district	Khandwa district	Budni block
GP for in-depth study	CHHAPRAHAN	KILLOD	MANJARKUI
Strategy	Extensive trainings	Extensive trainings	Block-focused

Figure 14: District maps of HP and MP with the GPs selected for the in-depth study
Adapted from (D-Maps 2012)

The logic of this critical sampling is analogous to the sampling of the case studies from the districts in the state (see cases sampling subsection). Thus, the insights from the in-depth study will be rich, but only showcasing what happens in the best performing GPs. At the GP level, however, generalising is even more important, so there is a need to understand well how the selected GP compares to the rest of the area in terms of outcomes, and also whether there are relevant process issues in the rest of GPs. That is why I selected good performing GPs but with average profile, and also the reason to do preliminary visits and comparative visits to other GPs in the area.

The methodology of the in-depth study was a combination of qualitative and quantitative tools, with a predominant ethnographic inspiration (van Donge 2006). This inspiration is first reflected in the fact that I spent between 5 and 15 days in each of the GPs –depending on size, saturation and time constraints– and relied primarily on constant participant observation in order to learn from inside and elaborate a thick description. In addition, the approach was generally open and with flexibility regarding the issues discussed and the structure and patterns of interaction. Finally, the idea was to gradually 'dig deeper', trying to learn the codes used locally, empathize and go beyond the superficial

and more visible issues, unveiling nuances and slowly finding the relevant questions. The tools used in the in-depth study follow:

First, I met with key actors in the village (authorities, sanitation committee) in order to present myself and the research again (first time was during preliminary visit), explain what I intended with the in-depth study, seek their collaboration and answer any question they had. I also tried to gather available information regarding sanitation, such as base-line data, household lists and the maps prepared during the facilitation process.

An important tool was the **transect walk**, consisting of walking through the different areas of the GP observing and establishing informal talks. I used the walks various times and discussed in a relaxed manner with several people about their experience and perceptions regarding the sanitation campaign. The walks also served to establish rapport with the villagers, to contact with people that had not been reached otherwise, as well as to see the extent to which the environment was ODF.

Meanwhile, I conducted **semi-structured interviews** with key informants. On one hand, with those having a say or influence on the sanitation intervention: members of Sanitation Committee, authorities –Sarpanch or Pradhan (GP head) and Panches (subGP heads)–, government workers –GP secretary, teachers, anganwadi (pre-school) workers, health workers–, Natural Leaders –religious leaders, respected people– and members of community based organisations –Self Help Groups, Mahila Mandals (women groups), Yuvak Mandals (youth groups). The aim was to learn about the process of change that happened due to the sanitation interventions and about the role played by each of the actors. On the other hand, I also interviewed those opposing the campaign and those which could be tagged as 'least able': practicing OD or sharing latrines, migrants or temporary workers, poor households, widows, people with disabilities, elderly, low cast or tribal households, adolescent girls, single-headed households, etc. The aim was to also gather their perspective of the process and the challenges they faced regarding sanitation.

Additionally, I used **household immersions**: spending a whole day with a household and taking part in their daily routine and helping them in any task –as far as possible. The immersions were intended to build trust and rapport with the villagers and to gain a deeper understanding on their day to day life, especially on what refers to sanitation (their practices, how sanitation issues affect them, etc.). Participant observation was obviously the main tool within the immersion, but informal 'free-flowing' conversations were also important. As it was a culturally sensitive tool, the households for the immersions (5 in total) were selected by the authorities, keeping in mind that they had to be 'normal' families –not too well-off– and that my presence there should not be too annoying…

In the meantime, I conducted a 'slow' survey in a random sample of household. The **household survey** involved both latrine observation (and photographing) and a short structured interview. I term it as 'slow', because if the interviewee at the household had a key-informant profile (e.g. practising OD, having strong views on the sanitation campaign or presenting some vulnerability), the encounter was extended in the form of a more semi-structured interview. The survey aimed primarily to study, on one hand, the household latrines: design, materials used, problems and changes, state of preservation, cleanliness and use by the family members. On the other hand, the perceptions of the household

regarding the benefits of sanitation and the challenges faced for changing behaviour. Socio-demographic data of the household (e.g. number of members or caste) and sanitation-related data (e.g. availability of water) were gathered too, in order to establish potential links between variables. Trying not to overlook the household black-box, individual data of the respondent(s), such as gender or relation with the household, were collected too. The sampling process is described in the recollection subsection.

I also paid **visits to schools and anganwadis** in order to assess the sanitary facilities, practices and institutional arrangements. During the visits, I examined the latrines and interviewed the headmaster or some teachers. When possible, I also took the opportunity to interact with children and learn about their perceptions, knowledge and practices regarding sanitation, hand-washing and hygiene in general.

In the case of Manjarkui, as the sanitation campaign was still on-going and people were very motivated, it was possible to organise also a participatory workshop, were a timeline was set up and people shared in a piece of paper or verbally what they had liked most and less from the sanitation change process. It was also possible to make a follow-up visit to some GPs 3 months after the initial visit.

At the end of the stays, I had **feedback sessions** with those interested; generally, the GP authorities and those involved in the sanitation committees. The aim was to share the insights from the study and contrast my preliminary conclusions with their views.

4.5. Recollection, analysis and dissemination

Recollection

The biggest part of the recollection is already described in the tools above. However, some issues are completed here. First, the overall chronogram is presented. Then, for some tools, I describe the sampling sizes or procedures. I finally address cross-cutting issues, such as the translation and the interactions that developed between the informants and me.

I spent 6 months doing field research, split in two three-month periods. It would be boring to explain all my to-ing and fro-ing around India, so what follows is a simplified **time line**.

The first period started with some days in Delhi doing national level interviews. I then went to Bhopal in Madhya Pradesh and did some interviews at the state level. Afterwards, I moved to the case level for more interviews and preliminary visits to different GPs, first in Budni block and then in Khandwa district. The next stage focused in Khandwa, with the in-depth study in Killod GP and comparative visits to neighbour GPs. Similarly in Budni, Manjarkui GP was researched in-depth and other GPs were visited for comparison.

After Madhya Pradesh, I spent a month in Spain and then went to Himachal Pradesh and proceeded analogously. A few days interviewing in Shimla preceded my move to Mandi district for more interviews and preliminary visits to GPs. In-depth research in Chhaprahan GP followed. Finally, I did some comparative visits to different GPs in the neighbouring district of Bilaspur. The last phase consisted of sharing and feedback sessions that started in Himachal Pradesh, continued in Madhya Pradesh (where some GPs in Budni were visited as a follow up) and ended in Delhi.

Regarding the samples selection, the types of sampling and design criteria used are described along with the respective tool. Here, I complete that information with the sample sizes and technical details.

With respect to the interviews, I did 16 at the national level, 34 at the state level and 30 at the case level (districts or block). At the GP level, I did over hundred, but it is difficult to count them and to separate them from informal or casual conversations. The number of interviews conducted (at all levels of the research) was determined by the saturation factor, that is, by when new interviews did not shed any further light on the issue under investigation (Mason 2010) , always being aware of potential biases or groups of actors excluded of the interviews.

As for the number of GPs included in preliminary and comparative visits, add up to 13 in Khandwa, 11 in Mandi and 23 Budni. This number was determined by saturation and also by logistical constraints (time and vehicle).

Concerning the survey during the GP in-depth study, where I was myself going house by house, I had to adapt the sample design to each situation, due to the difficulties to get a complete and updated sample frame. Sample selection from that frame was always random. For the size, it should allow a confidence interval of around 10% for the most relevant qualitative variable –toilet use–, with a confidence level of 95%. In Killod GP, I surveyed 59 households, out of a total of 300 households. The sample frame was a not very accurate GP households map; one third of the households in the map did not exist, so it had to be corrected. Finally, the confidence interval for toilet use was 11.5%. In Chhaprahan GP, I surveyed 81 out of 404 households. The sample frame was a rather updated list of households in the GP. The confidence interval for toilet use was 5.8%. In Manjarkui GP, the sample frame was a very recent household sanitation map, with all the households and their pre-campaign sanitary situation depicted. This allowed for a stratified sampling, surveying the 36 ‘non-sanitised’ households and 33 out of 174 ‘sanitised’ households. The resulting confidence interval for toilet use was 6.3%.

As for the **registration** of the information, the predominant means was writing down. I was taking notes during interviews, transcribing literally exceptionally relevant parts, and reviewing and completing my notes afterwards. Only exceptionally interviews were recorded. In less formal interviews or conversations, if taking notes could potentially embarrass the interviewee, I wrote down a summary afterwards. Similarly, for observations during visits, transect walks or immersions, I took notes either immediately or afterwards, depending of the situation.

Regarding the **languages**, interviews at national, state and (partially) case level were in English. For the field research at the case and at GP levels, I was always accompanied by an interpreter that translated

from English to Hindi (or Mandiyali in the case of Chhaprahan) and vice versa. This affected obviously the richness of the information I could collect from the interactions there. I learnt the basics of Hindi in order to counterbalance this a bit. Apart from the language gap, the cultural gap was also very important, especially in the initial phases of the ground level field work. Apart from efforts for cultural immersion, I sat regularly with the translator in order to share and contrast interpretations of what had happened (during walks, household immersions) or had been said (in interviews or surveys).

Partly related to the cultural gap is the issue of my **interaction** with the informants, which is also relevant for the research; how we perceived each other, the interests on each side, etc. The kind of interaction varied according to the location. What follows applies most to the GP level during the in-depth research.

Some identity elements contributed to me being perceived as more or less powerful, meaning that people would be more or less interested in me and wanting to support and/or please me. These elements include my identity as 'white', European and researcher. Also being 'sent' to the field by powerful institutions such as UNICEF in MP and the Government in HP, or arriving to the village in a nice car (in the case of MP). Other elements decreased my power or lowered my profile, for instance, being young or without an established professional career. Also spending a lot of days in the rural area, researching on sanitation and dressing rather informally, as well as the fact that I was soon not perceived as a gate for getting resources.

How different people perceived these conflicting elements and how they positioned themselves towards me affected to some extent the interaction I could establish with them. For their positioning towards me, relevant factors were age, gender, cast, literacy, income level and exposure to urban or foreign areas.

As a consequence, on one end people could not take me serious or not want to devote much time to talk to me. Others would be interested in me and willing to answer my questions. On the other end, if I was 'too powerful', people might also tell me what they think I wanted to hear.

The interaction was however not static but evolving, and I could try to steer towards a positive exchange. By positive, I mean that it would support the research, but also, taking account the ethical dimension, that it would not reproduce oppressive power relation patterns. The key for that was to be transparent and honest, build confidence and to establish a balanced rapport. I tried to do that in different ways. First, on arrival to the GP, explaining clearly who I am, what were my objectives and my interests for being there (learning from them) and what could be the potential benefits for them (at the GP level) or for the sanitation campaign in general, in terms of useful evidences gathered, making also clear that it was not the preparation of a future development project. I also tried to tone down some of my 'empowering' identity elements when I felt this was impeding a more even relationship. One thing that was very good for this were the household immersions. At a more interpersonal level, I tried to establish relaxed conversation, by being informal enough, adapting to the interlocutor and actively listening.

Analysis

The analysis of the information collected took place both during the field research and afterwards.

I conducted a preliminary analysis during the in-depth study, aggregating the survey results and summarizing the evidences from the interviews, observations, etc. This was done in order to be able to share the initial findings already before leaving the GP, and afterwards at the rest of levels.

I was also using a research journal, where I wrote from time to time reflections related to the research that matured over days or weeks (and thus were not recorded in my field observation notes).

Back in Valencia, I completed the analysis of the survey data, using statistical software (SPSS and Excel) in order to obtain aggregated indicators, summarize and categorise information and graphically display the most relevant variables. I also analysed the notes from interviews and observations, going through them iteratively. First reading them through again, then transcribing relevant pieces of information and afterwards classifying them by location and by topics they refer to. A final round consisted in teasing out stories emerging from the data, trying to cut across categories and locations and establishing links between topics.

Dissemination

As said before, I consider very important to bring back the findings of the research to the actors involved, which relates with the reflexivity needed: who is going to benefit from the research? Therefore, dissemination is not a final stage, but constant throughout the research. This is reflected in the fact that a big part of the dissemination has been already described or cited in previous sections. It is also a research tool, in the sense that it allows contrasting and discussing the findings.

Coherently, I had feedback sessions at all levels and in all the locations researched. In the 3 GPs were the in-depth research took place, I had individual or group feedback sessions with the authorities, sanitation committees and interested individuals. At the case level, I had feedback sessions with members of the block and district level administrations involved, as well as with supporting NGOs or independent master trainers (in the form of a participatory workshop in the case of Budni). At the state and national level, I had separate feedback session with concerned government officers, consultancies and interested agencies and institutions (UNICEF Madhya Pradesh, UNICEF India, Water and Sanitation Program and CLTS Foundation). The feedback was always bidirectional, that is, I shared my preliminary findings (generally with supporting slides on the computer) and my interlocutors gave me feedback, too, countering, qualifying or validating my views. The feedback was very positive and even very enlightening in various occasions.

During these sessions some institutions or individuals showed interest in having a written record of the findings I was sharing. Thus, after leaving the field, I prepared general reports from my findings in Himachal Pradesh, Madhya Pradesh and a general one comparing both states. I also made one report for Mandi district and a technology-focused one for Budni block.

At a more academic level, I have shared some of my finding in different more or less formal events both in Spain and the UK, and have submitted a paper to a journal. However, once this thesis is submitted, I intend to present my work in different conferences and write a couple of additional journal papers.

4.6. Reflexivity: Ethics, Process and Limitations

Reflexivity refers broadly to the critical awareness of the researcher of her (or his) influence or power in different aspects, including research epistemology and positionality, discussed before. It also involves being conscious of the ethical dimensions of the research, including the need to be transparent regarding the research process, as well as of the limitations of the research, which are addressed in this section.

Ethics

Traditionally, research ethics tend to focus on the data collection stages, in the sense that the researcher has to take into account informed consent, confidentiality and reciprocity (Sumner, Tribe 2008, p.40). Without neglecting these issues, in this research I tried to have a wider perspective. Development studies are said to raise ethical questions about the definition or the idea of development, about relations with policy makers and with the researched and about the research process itself (Sumner, Tribe 2008, p.38). There are plenty of elaborations of ethical dilemmas affecting development research (Brydon 2006, for instance), as well as several codes of conduct for different disciplines. But instead of synthesising all here, I discuss and share my reflections only regarding the ethical questions that actually emerged and made me reflect during my research:

What is my **legitimacy** to do this research?

The legitimacy question spans over 2 dimensions, namely my paradigmatic perspective and my role as an external researcher (Sumner, Tribe 2008, p.39).

The **paradigmatic dimension** relates to the underlying normative assumptions of the research; trying to find out how the sanitation interventions studied contribute to sustainability, implies to some extent a positive perspective on development in general and of sanitation –through household latrines– in particular. These could conflict with the visions and perspectives of the 'researched', leaving me in a neo-colonial position, claiming to know what is good for them. I actually found a lot people who did object to the idea of sanitation and preferred open defecation. It was not, however, a generalized trend, and rarely found among those with less power and voice. This, along with the more literature-based justification of the need of sanitation (see in chapter 2) has some legitimating effect on the research underlying assumptions.

The second dimension is my **role as an external researcher** studying in a foreign setting. Who am I to go there and tell them about their sanitation campaign? This question is pertinent due to my cultural distance to the research area and also due to the privileged access to policy makers a foreign researcher can have. The question cannot be fully answered, but I tried my best through several ways. First, being as rigorous as possible in my research work and self-questioning any initial impression. Second, trying to make the research as participatory as possible, involving the partners and the 'researched' in as many moments as possible, especially in the research design and in the discussion of the results. Third, being transparent with the research methodology and, when sharing initial findings to policy makers, focusing more on the evidences than on conclusions/recommendations. But furthermore, couldn't local researchers perform these tasks better than me? I would say yes, but my presence there was not crowding out local researches (my funding was low and came mainly from my university) and sanitation is anyway a severely under-researched topic, especially in India, where the involvement of scholars, universities or institutes in rural sanitation is anecdotal.

Research **for whom**?

Who benefits from the study is a very pertinent question, as I was taking a very precious resource from people –their time– for conducting the research. Most of these people did not get any direct benefit from the research. I attempted not to take too much time from them, especially if they seemed to have other important things to do. I also tried always to be very clear on what my objectives and interests were and on what the research was intended to be useful for –improvement of sanitation interventions generally– and the potential benefit for them, in terms of the learning arising from the research. In general, people were happy to answer my questions and were very kind during the short visits. With the in-depth research, it was nevertheless common to find some initial resistance from GP leaders, especially regarding me staying overnight in the GP. The main reason seemed to be the nuisance it meant for them having to make 'appropriate' arrangements regarding lodging and food, although fear/mistrust of what I could 'find' was there in some cases, too. My explanations and the backing of the administration finally made them accept me staying there, but ethical questions arise whether I should have not insisted after seeing their reluctance. I fear I do not have a clear answer to that question, as it arises many issues: legitimacy, representativeness, methodological rigour, power, etc. But at least once in the GP, the interactions with the villagers and even GP leaders were positive and constructive. Linked to this issue of 'research for whom', I made the effort to always share the findings of the research, at all the levels where I conducted research, including the GP level.

Whose voice counts?

It has been said that researchers tend to talk to elites (Chambers 2006, p.22), men and beneficiaries. I tried to offset this bias making an effort to find those least able and listen to them, using transect walks and randomising some samplings. However, the gender bias was sometimes difficult to counter, being a male researcher, generally with male translators.

The research backstage

When you are in the last phase of your PhD, reading the initial research proposal is always an interesting and hilarious exercise. You really wonder how you could be so naïve, so unaware of the ground reality and so ambitious... In my opinion, the more your research has changed throughout the process –or the more you laugh with reviewing the initial proposal–, the more you have learnt!

On paper, any research –I hope this thesis too– looks coherent and logically connected, even linear. But the research process is generally rather fuzzy, with several loops and various phases overlapping, responding to ground realities or unexpected insights. Two examples from this research would be the analyse information before finishing recollection or adding to the theory while analysing to address emerging issues. This is especially relevant in development research, dealing with complex situations and lots of incertitude. The evolution in the research involves many back and forth changes along the process, and it would be tedious to explain or read a thorough description of them. As a consequence, this issue usually remains as a blind spot in the backstage of the research, or appears confounded with the research limitations. Behind this, there might be two underlying assumptions, either that the research evolution is not relevant, or that is something negative. I would like to challenge both ideas. In my opinion, the changes during the research process might sometimes entail some limitations, but they mostly contribute to adaptation to the ground reality and to relevance of the research. In addition, this evolution is a track of the initial ideas and conceptual shifts of the researcher, which I find relevant and worth sharing. Therefore, in the following paragraphs, I unveil the backstage of my research, explaining the major changes it was subject of, its causes and consequences.

Even before starting the filed, major changes happened. I had initially agreed with the CLTS Foundation to study a peri-urban experience in Kalyani (West Bengal) and a rural experience in Himachal Pradesh. But few months before flying to India, after having established contacts with UNICEF Madhya Pradesh, we decided to drop Kalyani and focus on the rural area, both in HP and MP. This entailed a reorientation of the literature review, focusing more on (only) rural sanitation and studying the context of a different state.

At the point of starting the field research, the focus was on the sustainability of specific CLTS interventions in MP and HP. The idea was to look at one area in each state where CLTS had been used, with successful initial results, namely the achievement of ODF GPs. In each area, a sustainable GP and a less sustainable GP would be selected for in-depth study. The research questions dealt primarily with the dynamics once ODF status was achieved and whether it was sustainable (concept that included a pro-poor and reflexive dimension).

But the insights from the field gradually revealed that my underlying assumptions –that there were ‘pure’ CLTS interventions in MP and HP, and that in many cases they had resulted in ODF GPs– were flawed.

In MP, the first case I studied was in Khandwa district, the best experience in the state. But CLTS had not been correctly applied (only triggering tools) and outcomes were also not up to the expectations.

The supposedly 'sustainable' GP, which was among the best performing GPs in the district, had never reached ODF status and open defecation was widespread. I found interesting insights there, although not 100% related to the research questions. After a quick visit, I decided that the 'less sustainable' GP would not be very enlightening and dropped it. Instead, I included Budni block (in a different district) as a new case study, seizing the opportunity presented by the fact that UNICEF was supporting the introduction of CLTS (the full approach) there and that I had had some exposure to that process. I chose one of the best performing GPs for the in-depth study, but without neglecting other GPs. Although I would not be able to gather many evidences on sustainability –the process was very recent– it represented a valuable learning opportunity.

Then I moved to HP. There, the CLTS approach had also been applied only partially, following its main principles, but not using the triggering tools. I took Mandi district as a case, the best experience in the state, and selected one of the best performing GPs for the in-depth research. I then moved to Bilaspur district, and there took a GP where community leaders' involvement was relevant, as I had not been able to gather enough evidences on this relevant issue of CLTS. Both GPs had been quite successful in the campaign.

Thus, I ended up with very interesting evidences that contributed to answer to some of the initial research questions at the case study level, but that were difficult to relate to each other due to the diversity of the cases in terms of time and type of intervention and context.

However, I soon realized that this diversity was probably one of the important findings of the research. I was studying cases where CLTS had been supposedly introduced, but had found that the methodology was rarely fully applied. Why? I had asked myself that question short after the first 'surprising' evidences and had tried to answer it during my interviews at the administration.

Thus, the research focus had been gradually moving away from the sustainability of 'pure' and successful CLTS local experiences. Instead, I had amplified the lens regarding time and space, increasing the emphasis of what had happened before and during the intervention and at higher administrative levels, namely at the broader political issues affecting the introduction of CLTS.

This had its reflection in the research process, for instance in the form of several rounds of reformulation of the research questions. I was also constantly complementing or enlarging the literature review. Firstly, zooming out from CLTS to the broad array of sanitation approaches. Secondly, giving more importance to the political issues related to sustainability. The methodology was swiftly adapted, too, mainly regarding the sampling strategy. From taking 2 cases to taking 3 cases, and from taking a sustainable and a less sustainable GP in each area for in-depth study, to take only the best GP in each case (and visiting others for comparison). Bilaspur was thus dropped as a case and became a comparative visit, in order to increase methodological coherence. The research tools did not suffer big changes. Minor modifications, related mainly to time constraints from both sides, include not using participatory tools in most areas, less immersions than planned, and cancelling commissioned diaries in Budni.

Limitations

There are several aspects of the research that impacted or influenced the depth and quality of my study.

The most relevant is probably the **language gap**. This affected the research, especially once far from the capital cities. I hired interpreters, most of them being local last year undergrad students or recently graduates that were fluent in English. They were motivated and thus best adaptable to the research conditions (staying for several days or weeks in rural areas without much comforts)… and to my paying capacity. They were also familiar to the rural realities. Conversely, they had not done translation before and were not familiar with research or sanitation interventions. Despite having interpreters, all the information lost in the translation process implies a limitation that has affected the richness and depth of my insights.

Related to this, is the **cultural gap**, that is, the fact that I was not familiar with local cultures. This affects the ability to make sense about the phenomena and social groups observed, despite any effort –that does not span over months or years– to immerse and absorb that culture. I went slower in the first phases of the field research, for instance devoting more days to the first GP in-depth study. I also tried to always discuss my impressions with the interpreters. Anyway, the cultural gap is one the limitations of the research, and might have an impact in my interpretations.

Actually I became very conscious of these two gaps in the last phase of the field research. As I was getting more familiar with the culture and the language, I was able to apprehend the basic situations of the GPs visited much quicker, to appreciate many more nuances in the social phenomena observed, as well as to detect problems in the translation.

A further gap relates to **gender**. Being male and having had most of the time male translators is undoubtedly an obstacle for exploring gender issues. I tried to be sensitive to situations where this could come into play and create a safe space so that the interviewee felt confident to share her perspective freely. This was still not enough to offset this limitation, and some gender issues might be a blind spot in this research. The most relevant one –amongst those I am aware of– relates to links between menstruation and sanitation and their consequences, especially at schools.

Regarding the changes happened during the research process described in the previous subsection, there is one that I believe represents a limitation, namely the **belated review of policy analysis literature**. The consequence was that the field evidences regarding the policy process were gathered almost intuitively. Having had a clear analytical framework beforehand would have been very positive for re-composing the interviews. It would have allowed a richer and more thorough analysis of the policy process, more strongly substantiated on primary data.

A further limitation, related to the research tools, refers to the surveys. As described in the recollection subsection, **sampling frames** were generally far from the ideal described in statistical textbooks. This might add some impreciseness to the inferences from the survey, which has to be

added to the already high confidence intervals. However, the rather descriptive objective of the survey makes approximate figures good enough, reducing the gravity of this limitation.

The limitations described here were unavoidable if we take into account the constraints in terms of time, resources and prior knowledge. However, looking back, I feel that it would have been positive to have a one-month field visit before the actual field research. Such an acquaintance period could have contributed to reduce the cultural and language gaps and allowed me to realise the importance of the policy process sooner. I only managed to spend one week in India before the research –apart from a three-week trip some years ago– for a CLTS related workshop that included a one-day visit to the field… definitely not enough.

5. Policy processes around the introduction of CLTS

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5.1. Outline of the chapter

Once done with the theory and methodology chapters, it is time to move to the evidences. This chapter deals with the evidences related to the policy process framed in the perspective described in the third chapter.

In the next section I explain the broad national level sanitation policy process, starting with the international level policy narratives and then focusing on the narratives in India, as well as on the agents supporting them, the interests of the involved actors and the resulting policy space. In the third section I go down to the state level, describing the context and sanitation policies of Madhya Pradesh and Himachal Pradesh and looking more closely at the efforts to introduce CLTS. Afterwards I focus on the case study areas, starting with Khandwa district in the fourth section: I describe the context, analyse the local policy process of introduction of CLTS and portray the resulting sanitation intervention, relating it to the categorisation presented in the second chapter. In the fifth and sixth sections, I do similarly for the two other cases, Mandi district and Budni block, respectively. I compare the three cases and discuss the evidences presented in the last section.

5.2. National level policy process

As said earlier, to see how the introduction of CLTS in the different areas has worked out, it is not enough to look at the dynamics and outcome locally; we also need to understand the policy processes that develop around these efforts and the intervention that resulted in each case. The local policy is shaped by the one happening at the state and the national level. These are in turn influenced by international discourses, with which I start.

International narratives around sanitation

A thorough description of the sanitation approaches and the sector evolution globally can be found in the second chapter, so I just make a brief synthesis here while re-examining them from the perspective of the policy process used in this thesis.

Rural sanitation started moving out of the world's oblivion in the 1980s. By that time, the sanitation crisis was seen as a problem of access to sanitary infrastructure, which was related with the lack of resources. The solution, the narrative followed, was to build latrines in the households through externally funded programmes. Sanitation programmes in the decade focused on construction of latrines that were technologically appropriate to the local situation (WHO 1992).

This supply-driven narrative was soon proved flawed, as it became clear that toilet construction did not result in sustained sanitary practices. A shift towards more demand-driven narratives started: sanitation was not about infrastructure anymore, but about behaviour change.

The new narrative in the 1990s expounded that sanitation was a problem of lack of awareness of the negative consequences of unsanitary practices (Black, Fawcett 2008). The solution, the narrative went on, was to transmit these consequences –especially those related to public health– to the targeted populations, for instance including a hygiene education component. Once people were aware, they would feel a genuine need to change their behaviour. Household demand was thus to become the driving force of the process, with the role of the state and NGOs shifting from that of provider to that of promoter and facilitator (UNICEF 1997).

The demand-driven narrative became mainstreamed, at least at the discourse level, and it is considered nowadays more effective and sustainable (Black 1998), although how to generate demand still appears to be extremely complex.

Different narratives within the broad demand-driven narrative have emerged in the past two decades. All these narratives agree on the point that households' demand has to be the driving force of sanitation changes, but their understanding on how to generate this demand differs, as does their view on the roles the different actors have to play.

Thus, while some still advocate for educating, others prefer to make sanitation sexy (sanitation marketing), to trigger emotions against open defecation (CLTS), to analyse systematically the specific psychological drivers (SaniFOAM) or to mix several of the previous.

Regarding the roles, pure top-down programmes are considered contradictory with the demand-driven principle. But there are diverse perspectives on the role locals should play and the extent to which the state or private agents should intervene. For instance, some prefer the households as demand generation target, while others target the community or specific section within it (e.g. women, children or CBOs). There is also controversy around who should pay for the latrines. On one side, zero-subsidy advocates argue that subsidy can discourage spontaneous construction and weakens the focus on behaviour change as it becomes the main driver for people's involvement (Kar, Pasteur 2005). Others believe that without any kind of external subsidy, the poorest won't be able to build proper toilets (UNDP 2006).

Sanitation narratives in India

The narratives in the Indian sanitation sector necessarily reflect the wider international discourses, probably due to the strong presence of international actors such as UNICEF or the World Bank. But they also are shaped by the country context and its particular sanitation history, both aspects described thoroughly in chapter 2. Here, I pick up the relevant elements and build on some of them.

The Centrally Sponsored Rural Sanitation Programme (CRSP), the first national effort to bring sanitation to rural India, was inaugurated in 1986. Poverty was seen as the main cause of the sanitary situation. As a consequence, it focused on constructing heavily subsidised toilets, namely 100% of its cost for the poorest sections and 90% for general public (Government of India 1993).

Analogously to the international shift from supply-driven to demand-driven narratives, sanitation in India started moving away from the construction mode during the 1990s, until the CRSP was transformed in 1999 into the Total Sanitation Campaign (TSC).

The TSC 'official' narrative portrayed the lack of awareness of the benefits of sanitation as the main cause of India's rural sanitary crisis. The lack of resources is a further obstacle to sanitation, especially in poor households.

Therefore, the sanitation campaign should put the "emphasis on creating awareness through intensive IEC [information, education and communication] to bring about attitudinal and behavioural changes for relevant hygiene practices" (Government of India 2004, p.3). The logic follows that once people have been exposed to the Information, Education and Communication (IEC) tools, they will understand the benefits of sanitation, make a decision to change their sanitary behaviour and stop open defecation by building and using a latrine. Those below the poverty line (BPL) might have financial problems for accessing sanitation, hence a cash incentive can be provided to them so that they recover part of the investment made. The administration should start the process through IEC, but afterwards it is the turn of the community to lead the process and of the households to build the latrines: "It is a

facilitating process for a community led campaign for demand generation of sanitation facilities" (Government of India 2004, p.3).

But many government officers and political leaders at different levels seemed not to be happy with the new policy, and tried to stick to the modus operandi of the previous programme. What I call 'the **covert narrative**' refers to the generally non-explicit discourse through which these actors articulated their actions. As in the previous CRSP, poverty is portrayed as the main cause of unsanitary practices, with tradition, ignorance of the benefits of sanitation and low priority of sanitation (among the population) as complementary reasons. The sanitation campaign has thus to focus on building subsidised toilets in order to overcome the poverty obstacle, with IEC playing a secondary role.

The non-stated inherent assumption runs "that availability of sanitary latrine at the household level would entail its usage and the resultant health benefits" (WaterAid 2008, p.31). Once households realise these benefits, behaviour change will become entrenched. This perspective, which "considers subsidy to be essential for the success of TSC" (WaterAid 2008, p.33), is seen by many as dominant (WaterAid 2008), including a member of WSP, who said that government officials "did not believe the TSC no-money issue" and "states wanted to stick to the construction mode" (Kakumanu, interview 2 feb, see list of interviewees at the end of the chapter). IEC can have a complementary role, but it is difficult to make people understand and change practices, due to their backwardness. Further, a top down implementation led by the government is needed in order to make progress, as lack of interest in sanitation does not allow communities taking an active role.

These two narratives were not alone in the Indian sanitation landscape; different actors and groups used alternative narratives to articulate their ideas on how sanitation could be advanced in rural India. At the national level, the most relevant one was the **CLTS narrative**. According to it, most people in the rural areas know about the problems that inadequate sanitation entails and are able to change the situation (Kar, Chambers 2008). However, due to the taboo surrounding shit and the inertia of social practices, they have not reflected much about it and they are locked into the habit of unsanitary practices.

The sanitation campaign has thus to focus in breaking this taboo. It thus helps "communities to understand and realize the negative effects of poor sanitation and empowers them to collectively find solutions to their sanitation situation" (Water and Sanitation Program 2007, p.6). A triggering session is the best way to do that, bringing the issue of shit crudely to the table and into public discussion. When this happens, the seriousness of the problem and its public dimensions are recognized by the community. The triggering also helps sparkling powerful emotions, which result in a firm determination to change the sanitary situation. From then on, the community will lead their sanitary transformation, and outsiders (administration, NGO) should only support when strictly needed. People will build toilets according to their resources, without external subsidies, as these "can create culture against participatory approach" (Shukla, interview) and short-circuit demand creation processes (Robinson 2012). Those better-off will help those that have problems for building a toilet. The strong determination to change will ensure that sanitation reaches the whole community and that any

challenge to sustainability finds an adequate response; “if you really ignite the community, then money and corruption issues get small” (Sinha, interview).

The three narratives I have presented here are the *official narrative* –embodied in the TSC guidelines–, the *covert narrative* –present in the discourses of many involved in the TSC implementation– and the *CLTS narrative* –brought forward by actors advocating for CLTS. These should be understood as cluster narratives. In reality, there might be as many narratives as actors involved. But most narratives only differ in small details and nuances, so I find this grouping useful to understand the perspectives at play at the national level and to analyse the policy process, which I focus on in the next subsection.

At lower levels, there were further alternative narratives, for instance articulated around the right to sanitation, as is the case of some NGOs. Regarding the village level, there are no clearly articulated sanitation narratives coming from the grassroots, probably due to the taboo surrounding sanitation that makes it a blind spot for many. At a more individual level, I observed what could be called ‘reacting narratives’, that is, people that verbalized their perspective on sanitation as a reaction to the intervention taking place –be it engaging with its discourse or rejecting it.

Agents, interests and context

The official narrative was first institutionally articulated in 1999, when the TSC was introduced. It was complemented in 2003 with the Nirmal Gram Puraskar award scheme, partly influenced by the emerging CLTS narrative and its stress on public good dimension of sanitation. The central level of the Government of India (GoI), namely its Department of Drinking Water and Sanitation (DDWS), designed the campaign. This was done in close collaboration with UNICEF India, which had been involved in the pilots that inspired the TSC (Alok 2010), as well as in the elaboration of its guidelines and its implementation in 14 states (Sanan 2011). These two agents were thus the main supporters of the official narrative, along with other NGOs and international agencies.

The official narrative signified a rupture with the previous programme, more aligned with the covert narrative. However, many actors kept endorsing the latter, principally government officers and politicians at the different administrative levels, along with implementing agencies and some local NGOs.

The CLTS alternative narrative entered the arena in 2002, when the Water and Sanitation Programme started promoting the approach. Several individuals in the government at different levels, which were exposed to CLTS and appreciated its potential, also supported the CLTS narrative, as did the CLTS Foundation and sanitation consultancy firms like Knowledge Links and Feedback Ventures Foundation.

Mostly, agents’ backing of a specific narrative stemmed from a genuine interest in tackling the sanitation crisis in rural India. They believed that the narrative they endorsed was the best way of framing the problem and that the intervention it favoured was best suited to solving it. But there were many other less-apparent interests that help explain the adscription of the actors to the different narratives.

For instance, DDWS support to the official narratives might also be influenced by an interest to be politically positioned with donor's perspectives and international consensus (Kakumanu, interview 2 feb). The support of 'small' actors to the covert or the CLTS narratives might also be related to economic or status interests (getting funds or being experts).

However, as a whole, most of the interests were converging behind the covert narrative, which became dominant. The most significant ones, involving politicians and government officers at different administrative levels, include corruption, patronage, technocratic inertia, contradictory professional incentives, misdirected accountability and lack of political priority. I now move on to discuss these interests.

Corruption is considered a scourge in the Indian state, as I mentioned in the second chapter. Rural development programmes, including TSC, are not an exception. Funds sent from the centre were skimmed by the officers and politicians at the state, district, blocks and GP levels. As a consequence, these actors were interested in heavily subsidised programmes (covert narrative), as the more money involved, the more they could leak out. Additionally, they preferred top-down implementation to bottom-up, as the latter implies more participation and opportunities to be held into account. Related with corruption, **political patronage and electoral clientelism** are also widespread in India, consisting mainly of rewarding supporters or 'encouraging' voters with cash or other resources. This was not even a hidden practice in Khandwa district in MP, where a block level politician spontaneously shared with me the problems he was having for recovering the millions of rupees spent in gifts during elections. Latrine incentives funds were not at all alien to these processes in the TSC. Thence the interests of the politicians were aligned with the covert narrative, as it involved more resources that could be distributed.

Technocratic inertia is prevalent among government officers, partly due to the modernisation paradigm and the bureaucratic system in which India has been immersed for decades. Officers at all levels mostly view rural development (and sanitation) as an issue of infrastructure and poverty that can be solved applying the 'right' technology. The covert narrative –more coherent with this view– represented the status quo and thence did not challenge this inertia. On the contrary, the more software-focused narratives, dealing with people's beliefs and behaviours, would have taken the officers out of their comfort zone, demanding the development of new skills, more time in the villages, etc. For example, bureaucrats were said to prefer not to spend the awareness raising funds, as there were no clear 'technical' criteria on how to allot to one or the other IEC option and they feared to be questioned afterwards (Kapur, interview). In order to counter this, DDWS recommended the states to transfer the TSC from the more technocratic Public Health Engineering Department to the Rural Development Department, in principle more sensitive to software programmes and more connected to the ground realities of the rural areas.

Contradictory professional incentives refer to the fact that for the career progression of government officers –especially those with responsibility–, it is positive to manage big budgets and show quick results, as there are post transfers every two or three years. Taking into account the traditionally paternalistic relationship between the Indian state and the citizenry, a top-down infrastructure

oriented campaign was seen as more reliable for achieving results in a short time frame. This was somehow bolstered with the introduction of the Nirmal Gram Puraskar award scheme. The professional incentives of the responsible government officers reinforced therefore the covert narrative.

Intertwined with this, the **misdirected accountability system** and the **flawed monitoring system** within the TSC also strengthened the money-driven and infrastructure-focused perspective. Those at the administration were held into account by their superiors mainly regarding whether the share of budget spent and sanitation coverage achieved reached the targets at the specific deadlines set. Government officers, knowing they would be evaluated based on funds disbursed and toilets built, focused on disbursing funds and building toilets. A story from Budni Block in MP illustrates this misdirected accountability: The block Chief Executive Officer was making strenuous efforts to make the TSC really demand-led, including not disbursing the latrine incentives upfront. He was however questioned by his superiors for not spending the funds allocated quick enough. The flawed monitoring system augmented such dynamics, as it was centred on physical achievement and had little reliability. Examples of over-reporting abounded on the ground, but a quick look at aggregate data is as illustrating. As showed in the following figure, toilet coverage progressed linearly according to surveys and censuses (red dots and straight line), while the TSC monitoring system depicted an exponential coverage growth (green curve). The latter runs almost parallel to the (black) curve representing the funds released for TSC, showing that monitoring in TSC is more related to the disbursement of funds than to real coverage. A further fault of the reporting system is that it is blind to sanitation slippage. Once a 'built latrine' becomes a data point in the monitoring system, it is assumed in place and functioning forever.

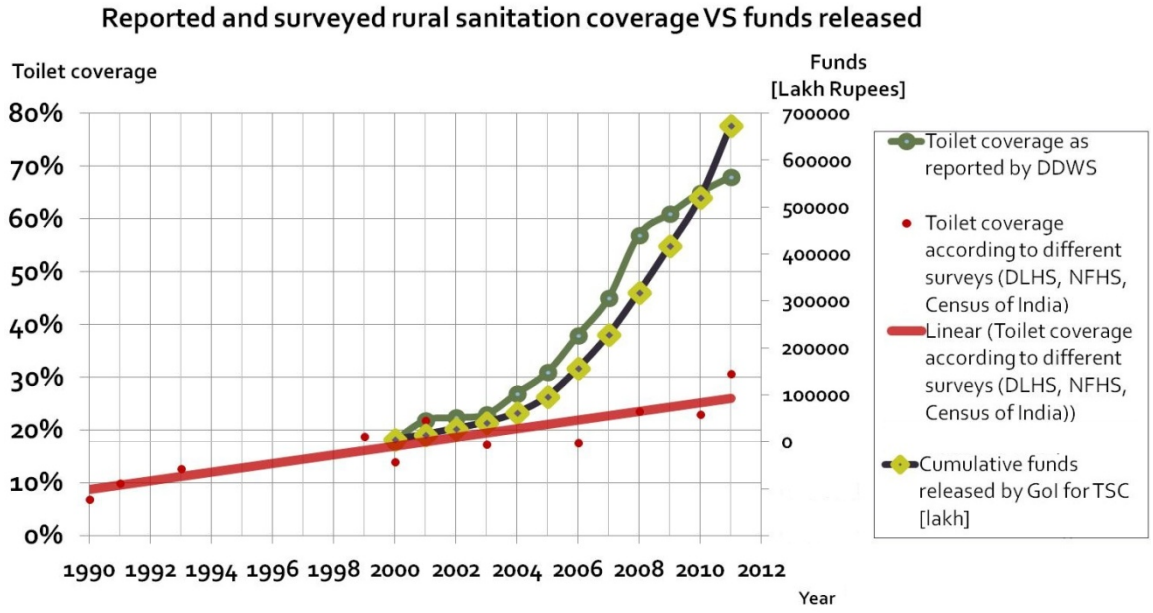

Figure 15: Rural sanitation expenditure and coverage from different sources
(Government of India 2012, 2012, 2012, International Institute for Population Sciences 1995, 2000, 2001, 2006, 2007, 2010, WHO, UNICEF 2012)

The lack of political priority of sanitation –as an absence of interest– is a key element for understanding the policy process. This low priority was overwhelming in the years before the NGP, when almost nothing happened regarding rural sanitation in the country. The NGP increased the political profile of sanitation, but it was still a low priority. This helps explaining the weakness of the official narrative despite being endorsed by GoI. If there had been a strong political will, DDWS would have had the power to take measures in order to counter the competing interests described above. For instance, the accountability system could have been made more coherent with the policy by focusing on toilet use and ODF GPs. Also, improving the monitoring and evaluation of the campaign could have tackled the perverse effects of professional incentives and have reduced corruption opportunities. Thus, these actors' interests would have been aligned with the new narrative instead of with the status quo represented by the covert narrative. The decentralised political system also affected the power of DDWS, but with 80% of the TSC funds coming from the GoI, its room for manoeuvre would have been enormous if there had been more political backing. The low priority of sanitation among politicians can be explained by a parallel lack of priority of sanitation among opposition, general public, NGOs and the media… As these actors were not interested in the issue, politicians felt they would get very little political return from their efforts and were thus less responsive (Besley, Burgess 2002, p.1415) to these problems. In addition, this resulted in a neglect of sanitation by politicians at lower levels in favour of more 'interesting' sectors.

The policy process I have described here needs to be framed in its broader **context**, which obviously played a role, too. A general portray has been made in the Indian subsection of the second chapter. Some important elements, such as India's modernising push, bureaucratisation, political patronage and decentralised governing system, have been picked up above along with the description of the interests. But there were other elements that had a bearing on the policy process. For instance, the country's tradition of subsidising its vulnerable citizens through various welfare schemes, which had generated a paternalistic inertia and dependency on government funding, making it difficult for demand-led narratives to gain acknowledgement. Coupled with corruption, these also created some distrust among villagers towards government programmes, preventing them from participating. A further consequence of the paternalistic inertia has been a lack of capacities of government officers and field workers for implementing programmes that need a lot interaction with the villagers. This lack of capacities adds to fact that these officers are many times responsible for many programmes and cannot devote the time a programme such as TSC would need. A further relevant context element is the patriarchal society. It influenced the TSC because it is women and girls which are most affected by insanitation. Their weak position and the taboo surrounding shit prevented their concerns to be addressed. Thus, many times villages did not prioritize this problem.

Policy spaces

As there was a constellation of powerful actors with strong interests in the status quo, the policy space was very small. The covert narrative, representing continuity, remained as the dominant narrative, despite the endorsement of two powerful but centre-based actors –DDWS and UNICEF– of the new

official narrative. As a result, the national sanitation policy was officially IEC-focused, demand-driven and incentive based, but implemented in a subsidy-based, supply-driven and construction-focused mode. An illustrating evidence of the dominance of the covert narrative is the continuous rise of subsidisation, both by GoI increasing the funds devoted per BPL latrine and by particular states adding an extra amount and/or extending the eligible households. This increase happened despite evidences that it reinforced the supply-driven character of the campaign and mainly because centre and state politicians could present it as a pro-poor measure (Robinson 2012).

With the national policy space being so small that DDWS could only change the rhetoric of the policy, CLTS chances or reshaping the policy were minimal. Actually, initial efforts of advocacy soon proved unsuccessful, with several people at the central government thinking that the CLTS narrative was not interesting, at least in the Indian context (Alok 2010). This situation is quite specific to India. In other countries, especially in Africa, the introduction of CLTS has faced less resistance (Kar, Milward 2011), probably because the absence of strong sanitation campaigns (and less relevance of subsidies) had as a consequence a wider policy space.

WSP, the only powerful actor supporting the narrative, moved thence to the state and district level. Engaging with politicians and officers at those levels, there were better chances to open new policy spaces locally. With key individuals at the administration committing to the CLTS narrative, it would be possible to change the policy under their area. In order to do that, high level officials from the state were exposed CLTS. Subsequently, and according to the interest showed, trainings were organised at the state and district level.

In the next section, I analyse the policy process –including how these efforts played out– in MP and HP, two of the states where WSP work was more intensive (Rosensweig, Perez et al. 2012).

5.3. Policy processes at the states

Before moving to the case study level, it is important to set the state context in which these cases are located and understand the main elements of the policy process taking place around the introduction of CLTS there.

States contexts compared

In chapter 2 there is a detailed account of the country context which is obviously very relevant for understanding the states contexts. Therefore, here I just bring a few elements that help situating the two states comparatively to each other and to India in general. Further elements will arise later when the policy process in each state is analysed.

Madhya Pradesh, the second biggest state in India, is located in the geographical heart of India (see map in figure 13). Historically, the area was part of ancient powerful Hindu empires until the 13th

century, when Muslim rule started. With the decline of the Mughals, the Hindu Maratha Empire seized control of at the beginning of the 18th century, although some areas remained as autonomous Muslim princely states. The region fell under British rule at the eve of the century (Encyclopaedia Britannica 2012), and the Central Province came into existence in 1861. It was transformed into Madhya Pradesh with Independence, acquiring its present shape in 2000.

As a result of its history, Madhya Pradesh (MP) is a medley of religions, castes and ethnic groups. Scheduled tribes (*adivasi* or non-sanskritised indigenous groups) represent 20% of the population, while scheduled castes (lowest castes) account for 15% (UNDP 2008). 92% of the population is Hindu and 6% Muslim. Hindi is the predominant language, with a considerable amount of Marathi speakers and several tribal languages (Encyclopaedia Britannica 2012). The population is predominantly rural.

Economically, MP is among the poorest states, despite high growth rates in the last years. The state has an agrarian economy (oilseeds and pulses), along with forestry, tourism and an incipient industry (Encyclopaedia Britannica 2012).

MP belongs to the BIMAROU (and now the EAG states), the least developed states in India. It ranks low on almost all human development indicators (Rosensweig 2008), with startling food insecurity (UNDP 2008) and widespread poverty, especially in rural areas and among tribal population. Women, Scheduled Castes and landless are further vulnerable groups on economic, education and health parameters (Government of Madhya Pradesh 2007). Despite the large number of schemes aimed at the poor population, development fails to reach them, partly due to the alarming levels of corruption (Transparency International India 2008). In addition, the schemes have generated dependence on handouts from the administration, especially among tribals (Rosensweig, Perez et al. 2012).

Regarding sanitation, MP also ranks low. Rural latrine coverage was 9% in 2001 and increased to 13% in 2011 (Government of India 2012), despite the TSC online monitoring system showing over 85% coverage for the same year (Government of India 2012). An additional challenge in some areas is water scarcity (Rosensweig, Perez et al. 2012), which generally implies a usage gap, that is, that use of latrines is much lower than latrine coverage.

Himachal Pradesh is a small state in northwest India (see map in figure 13). The history of this mountainous state, situated between the Indo-Gangetic Plain and the Himalayan summits, is complex and fragmented. The region was dominated by Aryan groups in the early age. Since 300 BC, successive empires (Mauryan, Gupta, Mughal) sought to control the area, with important trade and pilgrimage routes across the Himalayas (Encyclopaedia Britannica 2012). But during most of its history, the region was divided among small either independent or semi-autonomous kingdoms, many times ruled by Rajput (warrior castes) princes. This autonomy was partly maintained under hegemony of the British since 1859.

This, along with the fact that the area has been a refuge for several groups and castes (especially higher castes), fleeing from imperial authority from the plain, shapes the idiosyncrasy of the Himachali people (Planning Commission 2003). The society is relatively homogeneous, with 95% of Hindu

population. There are Buddhists tribes in the regions bordering with Tibet. Hindi is the predominant language, too. A vast majority of the population lives in the rural areas.

Economically, Himachal Pradesh (HP) is one of the most dynamic states in India, with high growth rates during the past decade and notable accomplishments in agriculture, forests, horticulture (it is called India's apple belt), hydro power generation and tourism (Planning Commission 2003).

Compared with other Indian states, Himachal Pradesh performs well on social indicators. Notable progress has been achieved in roads, women empowerment and literacy (Rosensweig 2008). The administration of HP is among the most effective ones, with HP among the top states in transparency (Transparency International India 2008) and with several schemes for the upliftment of the economic condition of poor families.

Regarding rural sanitation, HP has performed best among the Indian states in the past decade. Starting at 28% in 2001, coverage reached 67% in 2011 (Government of India 2012), with coverage-usage gap reported to be almost insignificant (Rosensweig, Perez et al. 2012). 67% coverage, however, is far from the 100% coverage reported for 2010 on the TSC online monitoring system (Government of India 2012).

The following table compares some key indicators for both states. The data are of 2011, unless otherwise stated.

Indicator	Madhya Pradesh	Himachal Pradesh	Source
Population [million people] and {rank} [out of 35]	72.60 {6th}	6.86 {21st}	GoI
Decadal population growth [%]	20.3%	12.8%	GoI
Sex ratio [females per 1000 males]	930	974	GoI
Area [1000 km^2]	308	56	GoI
Rural population [%]	74.3%	88.8%	GoI
GDP per capita [$] and {rank} [of 35]	719 {25th}	1332 {15th}	PC
Yearly GPD growth [%]	14.53%	16.45%	PC
Effective Literacy and {rank} [out of 28]	70.6% {21st}	83.8% {5th}	GoI
Literacy gender gap [percentage points]	20.5	14.2	GoI
Life expectancy [years] and {rank} [out of 19]	58 {18th}	67 {4th}	UNDP
Human Development Index (HDI) and {rank} [out of 19]	0.451 {16th}	0.558 {3rd}	UNDP
Inequality-Adjusted HDI and {rank} [out of 19]	0.290 {19th}	0.403 {3rd}	UNDP
BPL households that did not get BPL card in rural area in 2008 [%]	44%	19%	TI
Latrine coverage in rural areas in 2001 [%] and {rank} [out of 21]	8.9% {18th}	27.7% {8th}	GoI'
Latrine coverage in rural areas in 2011 [%] and {rank} [out of 21]	13.1% {20th}	66.6% {4th}	GoI'
Decadal coverage increase [% points] and {rank} [out of 21]	4.2 {15th}	38.9 {1st}	GoI'
TSC-built latrines missing [%] and {rank} [out of 21]	94.5% {5th}	46.2% {19th}	GoI',GoI''

Table 9: Relevant indicators of Madhya Pradesh and Himachal Pradesh

GoI (Government of India 2012); PC (Planning Commision India 2012); UNDP (Suryanarayana, Agrawal et al. 2011); TI (Transparency International India 2008); GoI' (Government of India 2012); GoI'' (Government of India 2012)

A summary from my research diary about some of the context differences can give a more qualitative insight on these context differences:

"From my interviews and visits to the Rural Development Ministry and some district and block administrations, I have clearly perceived differences between MP and HP regarding 'institutional culture', being much more accessible and open in the latter. In HP, I found it easy to meet high level decision makers, to have access to any document I was interested in and to have my questions responded to. I also found willingness to receive my feedback and openess in sharing and hearing shortcomings in the campaign. In contrast, in the interactions with the administration in MP, I felt generally that there was caution or even mistrust towards me. Regarding village representatives, the style of leadership is very different. In MP there is more distance between the Sarpanch and the villager, as compared to HP (Pradhans). Taking two extreme examples, in one GP in MP, many people adopted a servile attitude in the presence of the Sarpanch, who was always accompanied by a small cohort of people he could send anywhere if he needed something (e.g. 'get some soft drinks'). In contrast, in a Gram Sabha meeting in a GP of HP, the Pradhan told a person to speak to the audience instead of looking only at the table were himself and other authorities were seating. I also observed in many GPs of MP, that many men were taking the place of their mother, sister or wife as Sarpanch. Due to the reservation system, sometimes only women can candidate, so men use a female relative as a way to go around it. The women Pradhans I encountered in HP, on the contrary, were very empowered. Female empowerment was not limited to Pradhans, but there were many women taking part in village life and participating in the meetings. In MP, most rural women focus on the households and the fields, and many cover their faces and are reluctant to speak in meetings… given they take part in them."

Policy process and introduction of CLTS in Madhya Pradesh

The TSC official narrative did not make much impact on the sanitation policy in Madhya Pradesh, **dominated by the covert narrative**, which followed the assumption that "provision of facilities will lead to a behavioural change within the community" (Khanna, Khanna 2005, p.26). The result was an "overwhelmingly supply-driven" (Robinson, Raman 2008, p.3), construction focused and subsidy-led campaign, with the households having little choice, control or involvement in the process. This relates to the **technocratic inertia**, especially present in the Public Health Engineering Department (PHED), nodal agency in the state for the implementation of the campaign during the initial years of the TSC. PHED is primarily a works department, without a cadre of extension workers, having instead senior officers which did not see the TSC as their primary role (Khanna, Khanna 2005, Robinson, Raman 2008).

However, until 2006, it was the **lack of political priority** what determined the sanitation policy process in MP, overshadowing the rest of aspects. There was very little initiative by the government to implement the campaign, which advanced very slowly. For instance, budgets remained underutilized in most districts and TSC coordinators posts remained unfilled in several others. This reflected "a lack of interest by the districts, as there is [was] no shortage of funds" (Robinson, Raman 2008, p.3).

But then, the arrival and popularisation of the Nirmal Gram Puraskar (NGP) –and the initial poor achievements of the state– changed the situation, raising the interest on and the political support to

the campaign. As a consequence, a state sanitation strategy was drafted in 2006 with the support of UNICEF (Godfrey 2008). Focusing on demand generation, latrine usage and hardware supply, it was coherent with the national guidelines, embedded in the **TSC official narrative**.

Nevertheless, the new strategy and the increase of priority of sanitation in the political agenda did not result in an endorsement of the official narrative. Even in the state government, many officers were not convinced of the need to move away from supply-driven approaches (Robinson, Raman 2008). But more important, the **interests** of many actors were converging in the covert narrative and constrained the policy space, exemplifying the policy process described for the national level in general.

For instance, the technocratic inertia remained, as is evidenced by the fact that the change of the responsibility of sanitation from the more Public Health Engineering Department to the Rural Development Department was only decided in late 2007, later than in most of the Indian states (Rosensweig, Perez et al. 2012). And it did not lead to a more demand-led campaign (Robinson 2012), anyway.

The influence of the flawed monitoring system was also very important in MP, which is among the states with most 'missing latrines', as showed the previous table. In some of the villages I visited, the outcomes of the campaign did not reach even one functional latrine. This, coupled with a lax verification of the NGP candidates, offset the potential benefits of the increased political priority.

Contradictory professional incentives related to misdirected accountability were very evident, resulting in government officers dedicating more efforts to meet formal requirements (disbursing incentives, providing monitoring data or completing financial utilization reports) than to actually implementing the campaign (Robinson, Raman 2008), hence favouring a top-down implementation.

This was furthermore linked with corruption and political patronage –also above the average in MP–, which benefit from more supply-driven and subsidy-centred campaigns.

As said, these interests, coupled with the little enthusiasm that the official narrative aroused, resulted in a policy pathway coherent with the dominant covert narrative, despite the official narrative supposedly informing the state strategy. However, what was written on paper seems to be the result of the advocacy WSP and UNICEF, without true commitment from the government of MP (Kakumanu, interview 2 feb), which did not make much effort to enforce its own sanitation policy. Evidences of this abound. For instance, the knowledge of the strategy in the districts was found to be very low in a 2008 study (Godfrey 2008), and my interviews in 2011 showed the same situation. Another example is the creation in 2008 of an NGP-like state level sanitation award called Ujjwal Puraskar (Rosensweig, Perez et al. 2012), which never became operational (Robinson 2012). The dominance of the covert narrative is further exemplified by the innovative Nirmal Vatika scheme, with which MP pioneered in India the convergence of sanitation with the MNREGA work-for-cash scheme in order to support both BPL and APL families for building latrine pits. This added to the BPL incentive, which was disbursed as an upfront subsidy (Robinson 2012).

Thus, we can say that the policy space in MP was not big enough for the weakly promoted TSC official narrative. Similarly, the **CLTS alternative narrative** did not receive much enthusiasm at the state. However, conversely to what happened nationally, the lack of relevant actors supporting the official narrative had the consequence of a less hostile stand towards WSP advocacy for CLTS. The approach was somehow considered a further option of the IEC mix from which the districts could choose (Goutam, interview). The policy space was thus big enough to allow some exposure workshops and assist districts with potential champions willing to try CLTS.

Through this assistance, between 2007 and 2009 **WSP** arranged initial CLTS training in 25 districts (out of 48), conducted by Feedback Ventures. As per the information shared by WSP, more than half of these districts had further training sessions and started adopting the CLTS approach after the training events. However, most abandoned the new approach after a few months, reportedly due to change of leadership linked to the frequent post transfers. Only in four districts (Indore, Ratlam, Khandwa and Khargone) the experience lasted more than one year continuously. With various key persons in the administration committed to promote the approach, Khandwa adopted the CLTS in 2007 and is considered to be among the best performing districts in the state –if not the best. For this reason, the district was selected as a case study, and its experience will be dealt with in the next section.

The other more recent experience selected as case study in the state, Budni block, is also framed in the state policy process described; the newly appointed UNICEF WASH specialist, seeing the difficulties for introducing CLTS in the state policy and the challenges of WSP district-level efforts, decided to focus on the block level, in order to showcase the potential of CLTS there and try to scale up later on. The decision to start in Budni was related to the existence of a big policy space there, due to the fact that the block highest officer, the Chief Executive Officer (CEO), wanted to introduce the approach. In 2010, with some support of UNICEF, Budni trained a cadre of master trainers and adopted the approach, which yielded promising results in a few months.

Policy process and introduction of CLTS in Himachal Pradesh

In HP, sanitation programmes prior to TSC had been supply-driven and overall coherent with the covert narrative. The result was thousands of disused latrines spread throughout the rural landscape (Rosensweig, Perez et al. 2012), generating disappointment and inaction among the actors involved. Thus, the TSC (it included subsidies initially) did not generate much enthusiasm and during its first years, the story of sanitation in HP was one about absolute **lack of interest**, as shows the fact that progress between 2001 and mid-2006 was anecdotal, with less than 0.5 percentage points increase in toilet coverage (Government of India 2012). It is difficult even to identify any sanitation policy narrative; the TSC official narrative had not much support; but neither did the covert narrative, discredited by past failures (Sanan 2011).

The lack of interest is obviously problematic for advancing the sanitation agenda. But paradoxically, it makes the policy space flexible as well, that is, it is comparatively easier to open it up.

And that is what happened in 2005, when a sanitation strategy inspired in the **CLTS alternative narrative** was adopted. The seed of the change, however, dates back to 2003, when Sanan, who had been persuaded of the potential of CLTS after attending a workshop in Maharashtra, became the Secretary of the Rural Development Department in HP. With technical support of WSP, he led a long-term effort to set up a new sanitation policy. The effort included a rapid assessment of the situation in several districts, the mobilisation of political support from high political circles, some workshops and exposure visits for officers to other states, and setting up appropriate institutional arrangements. The strategy finally adopted in 2005 outlined a demand-led approach, based on community involvement and ownership, shifting individual subsidies to community post-ODF incentives, including a community competitive award and emphasising monitoring and evaluation (Government of Himachal Pradesh 2005). A second landmark was the 1st CLTS training in Solan district in 2006, conducted by Kamal and Knowledge Links. Several champions emerged from these initial period, including Subashish Panda, the Mandi District Deputy Commissioner (highest government officer in the district), who quickly launched a successful campaign in Mandi with an NGO as support organisation, setting the pace for the rest of the state. (Sanan, interview; Vishal, interview and Bhavna, interview). Massive trainings on sanitation in general and on the CLTS approach in particular followed. Most districts hired NGOs to support their implementation capacity. The state award scheme Maharishi Valmiki Sampoorn Swachata Puraskar (MVSSP) was launched in 2007, with various competition levels and rigorous verification by inter-block committees.

Was it possible to implement this policy in its true spirit or did the policy process derail its principles? Contrary to what was prevalent nationally, in HP it was overall possible to implement the strategy without much deviation, with the CLTS alternative narrative becoming dominant.

The relatively supportive context of the state, including a very effective administration and a growing environmental movement (Robinson 2012), is a factor that contributes to understand this success, as is the flexible policy space cited earlier (there were no pre-existing interests to offset) and the fact that sanitation was under the Rural Development Department. But what really made the difference was the **coalition** established between two agents, Deepak Sanan, the Secretary of the Rural Development Department, and the Water and Sanitation Programme. They shared the aim and the commitment to make sanitation happen in the state, and had power to interact with officers and politicians at every level (Verma, interview). They gained more supporters to their cause through trainings, workshops and exposure visits (especially mid-level government officers), building an informal network around the CLTS alternative narrative, which raised its profile and that of sanitation in general. Gradually they also managed to align the **interests** of the rest of the actors with their narrative, which thus became dominant.

The first, and probably most relevant one, was the **political priority** at high levels of the administration and government. The cited higher profile of sanitation due to the network and its activities (including active advocacy) increased the attention paid to it by high level politicians and officers. Gradually, the widely reported results started to gain attention, and politicians came on board (Sanan, interview) and supported the new strategy and narrative, as shows the involvement of the HP Chief Minister in the

distribution of sanitation awards and the coherence of his discourse with the principles in the narrative.

This consensus around the narrative and the conjunction of support to the strategy at high- and mid-levels generated a cascade effect, encouraging inter-departmental cooperation, galvanising local leaders and administrators and channelling resources and capacity to address sanitation deficits. This ended up creating a virtuous circle between increased political attention and good results (Robinson 2012).

The state also promoted the **recognition** of local actors for their involvement in sanitation, for instance organising celebrations in ODF villages with authorities, which put sanitation into the agendas of neighbouring village leaders (Verma, interview). Besides, there were specific awards for schools, youth groups and Mahila Mandals (women's CBOs) for their performance in the campaign, and these were distributed in public functions with higher level authorities. Similarly, NGP and MVSSP awards are given by the highest state authorities.

The **professional incentives** of those involved in the campaign were also aligned with the sanitation strategy. The accountability mechanisms established –including regular meetings of the District Water and Sanitation Missions or visits of different external teams to GPs– were a clear signal to government officers for prioritising the programme. But these mechanisms provided a safe learning space, too, where the obstacles of an inherently complex programme could be recognised and addressed. Also, the MVSSP, with a rigorous verification system (though only reaching GPs nominated for the award), aimed to tackle the problems of a flawed monitoring system. The result was mixed, with exaggeration of performance far below the national average, but still considerable level of over-reporting.

The absence of a cash incentive also prevented corrupt behaviours common anywhere else in India, although HP has comparatively very low corruption anyway.

As said, these alignment of interests of the relevant actors involved, coupled with continuous monitoring and workshops to keep "hammering the same messages" (Sanan, interview) allowed the CLTS alternative narrative to become **dominant narrative**, from the top to the bottom. The quote "when the pressure of making expenditure for constructing a toilet is on the pocket of the owner, then he cares also on maintaining it" could be part of a speech of a state authority or a sanitation expert, but it belongs to a woman participating in the Gram Sabha –village assembly– of GP Chamnyana in Shimla district.

The policy pathway finally taken was very coherent with the narrative, observing its main principles. There were nevertheless slight **variations** due to various issues.

First, the NGOs engaged as support organisations for generating demand at the ground level did not agree with the idea of a triggering session to crudely discuss about shit to be central for the campaign. According to their narrative (in-between the TSC and the CLTS ones), shared by several government officers too, their traditional sensitisation tools were more effective. Many interviewees argued that the tools presented in the CLTS trainings were offensive and not suited to a literate context like HP.

Instead, less challenging activities (street theatre, functions, etc.) were preferred, followed by interpersonal communication: house to house visits, talking, reasoning and listening to people's concerns. And these were thus the tools used in most districts (George, interview 24 may). Partly related, the leadership of the community level process was more on the GP elected leaders than on emerging Natural Leaders.

Second, GoI did not accept the reallocation of the household incentives funds to community rewards. Thence, cash incentives to BPL households started to be distributed in 2008 in GPs that had achieved ODF status, but the flow was slow and late enough to offset the perverse effects of subsidisation (George, interview 27 may). It did moreover not affect the MVSSP awards, which were funded by the state.

Finally, the initial momentum and sense of mission of the sanitation campaign weakened with time, principally due to the transfer of relevant supporters and champions –including Sanan, who nevertheless continued supporting the process from his subsequent posts– and to the change of most Pradhans (GP elected leaders) after the elections (Bhavna, interview). However, the network promoting a zero-subsidy and collective behaviour change focused campaign had been growing in strength and numbers over the years and the large amount of officers and leaders capacitated and committed sanitation campaign cushioned the consequences of these transfers (Sanan, interview). In mid-2011, nevertheless, despite several evidences of gaps later confirmed by the census, some self-indulgence was perceived amongst government officers interviewed, in the form of an assumption that the household latrine component was achieved, and that it was time to move on to community toilets or waste management.

The sanitation campaign was similar from one district to the other, although intensity varied. Further differences were related to the actors involved. For instance, the specific IEC tools utilised varied according to the NGO engaged as support organisation. Some emphasised street theatre while others preferred meetings, with door to door visits being the most used tool. CLTS triggering tools were observed to be overall marginal –maybe with the partial exception of Solan district (Godfrey 2008). Other relevant characteristics were the capacity and regional and thematic expertise of each NGO (Vishal, interview). The progressiveness of the district government officers leading the TSC was important, too. Regarding these characteristics, Mandi district enjoyed exceptional leadership (Robinson 2012) and the participation of an NGO that had been working in the district on rural development programmes for years. The district performance was also regularly ranked high in the state's benchmarking system (Water and Sanitation Program 2010). For these reasons, Mandi district was chosen as case study in the state, and is analysed in the subsequent section.

In this section we have analysed the state level policy process regarding sanitation in general and the introduction of CLTS in particular. These two run separately in MP, with the process around the introduction of CLTS developing primarily at the sub-state level. The next sections deal with the process at the sub-state level, namely Khandwa district and Budni block. In contrast, in HP, the two processes are intertwined. The sub-state level analysed in the last section of the chapter –Mandi district– is thus more of a particularisation of what happens at the state.

5.4. Khandwa district

Context

Khandwa district (see map in Figure 14) has a population of 1.3 million people, 80% living in the rural areas (Government of India 2012) of its seven blocks. It lies on the uplands and valleys of the Narmada and the Tapti rivers (NIC Khandwa 2010) and is part of a low rainfall and drought-prone area (Khanna, Khanna 2005). The major occupation in the district is farming, characterised by small farm sizes and subsistence agriculture (NIC Khandwa 2010). The main crops are cotton, soybean, wheat and pulses (NIC Khandwa 2010). There is a considerable share of labourers, many also migrating seasonally to other regions.

The district ranks 35th in Human Development Index, among the 45 districts in MP (Government of Madhya Pradesh 2007). 63% of the rural population is literate, with a 24 point gap between men and women (Government of India 2012). Khandwa has a high concentration of Scheduled Tribes –Korkus, Bhil and Gond–, which add up to 27% of the population (Khanna, Khanna 2005) and are live principally in forest areas. 2001 census data revealed 10.1% rural sanitation coverage in 2001 (Government of India 2012).

A specific feature of the district is that a considerable part of it was submerged in 2005, when the Indira Sagar Dam created the largest reservoir in India, submerging 254 villages and a town and displacing tens of thousands of families (Goel, interview), most of them without receiving enough compensation to resettle elsewhere.

Policy Process

As said before, Khandwa seemed to be one of the districts in MP where the strategy of WSP was most successful. The interest of Khandwa district in CLTS came from the district CEO (the highest government officer in the area), who had had some exposure to CLTS in his previous post and wanted to introduce it in Khandwa (Goel, interview). In his post, he held a lot of decision making power regarding the sanitation campaign, but he had further allies in the form of two block CEOs, in Pandhana and Baledi blocks, and an authority at the division level (between district and state) were also supportive. In collaboration with WSP, they tried to introduce the **CLTS narrative** and change the policy pathway. In words of the district CEO, there was a need to involve the community and make the campaign demand-driven (Goel, interview).

In 2007, the district hosted several training and planning events. In the 5-day training of trainers, 35 government officers became Master Trainers, and district and block action plans were prepared collaboratively (Shittal, interview). Further trainings for masons and for CBOs were also organised and

several follow up events were held. Feedback Ventures conducted the trainings, while WSP assisted in the planning and follow-up. (Kakumanu, interview 2 feb)

However, not everybody was happy with the policy change, and this influenced the **policy process**. Many actors in the district rejected the new narrative and adhered to the **covert narrative**, which represented business-as-usual, better protecting their interests. These interests playing against the CLTS narrative are similar to those undermining the TSC narrative at the state level, described earlier.

For instance, technocratic inertia was present, as illustrates the fact that the district sub-engineers were in charge of most triggering and follow-up, despite their lack of time and professional training for village mobilisation. Corruption and patronage were significant, too, with GP leaders demanding big and malleable funds for the campaign. Political priority, which was low initially, rose sharply with the NGP, as the government of MP set targets of achieved awards for the districts. Thence, this priority was oriented to quickly show progress in order to reach the NGP deadline and decreased again afterwards. Coupled with a flawed monitoring system and lax verification, this resulted in misdirected accountability and contradictory professional incentives, meaning that those involved in the campaign –even if supportive of the CLTS narrative– were induced to implement it in a top-down and supply-driven mode.

The policy process had at least two **particularities** in Khandwa, as compared to what was indentified for the state level.

The first one is related to the political history of the district. Thousands of families (oustees) were evicted due to the construction of the Indira Sagar Dam, and did not get enough compensation to resettle in similar conditions, thus forming new and comparatively poor hamlets in the surrounding villages. This affected the citizens-government relationships, with the first getting habituated to top-down and insensitive policy making of the latter. In such a climate of mistrust, the government had little legitimacy or credibility to put forward the new 'empowering' narrative, which was logically received with suspicion at the grassroots.

Secondly and probably related to the first particularity, there was resistance from the front-line bureaucracy to the new policy, as they felt that it would be difficult to mobilize communities and that it implied an unrecognised extra effort from them. Two master trainers interviewed said that the campaign was very challenging and that they did not have enough time for so many field visits, as they were responsible for many other schemes (Soni and Morya, group interview).

As a whole, the network introducing the new narrative was strong, but so were those behind the covert narrative, too. The policy space was not big enough to allow a policy pathway totally coherent with the CLTS narrative; diverging interests had to be accommodated. The most influencing interest was probably the pressure from above to achieve quick results, which even those championing CLTS could not avoid: they had to "hurry to get the NGP" (Tiwari A, interview 20 feb).

Resulting intervention

The result was a hasty implementation and the use of a mixed approach for the **intervention**, with elements of both narratives: methods from CLTS narratives but principles from the covert narrative. At the end, CLTS motivational tools were used instrumentally within a supply-driven and top-down campaign.

Triggerings were facilitated all around the district by facilitators, with the particular case of Baledi block where a trainer from Feedback Ventures was hired and took part in the triggerings, too (Shittal, interview and Kakumanu, interview 28 feb). Tools such as the transect walk, participatory mapping or the glass of water were widely used. Master trainers reported to have focused on social and religious issues and their relation to open defecation, in order to generate a sense of shame and disgust (Soni and Morya, group interview) and ignite a desire to change the situation.

Follow-up activities started the next morning with the master trainers, who gradually transferred the responsibility of monitoring to the Village Water and Sanitation Committee (Soni and Morya, group interview). Such a committee was created in each GP at the end of the triggering session (Shittal, interview), integrated by Natural Leaders emerging from the process –if any– and people selected by the GP leaders (Soni and Morya, group interview). They were expected to persuade people to stop defecating in the open and build a latrine, as well as to go early morning to OD areas daily in order whistle or point with torches to those persisting in the practice of OD, as one motivator explained (Khan, interview). Some were rewarded with a certificate and/or pocket money. The quality and extent of these motivation and follow-up activities varied according to the location and support provided by the master trainers, with better performance in blocks with supportive CEOs, such as Pandhana and Baledi.

Open defecation was expected to be quickly eliminated through temporary arrangement and covering faeces. In theory, the administration then released the incentive funds to the GPs so that they could buy up materials and distribute to BPL families (Shittal, interview) –and to APL families as a loan– for them to build permanent latrines. In practice, however, these funds reached the GPs before ODF status, and irrespective of the level of ignition achieved. In many GPs, the funds were supplemented with the Nirmal Vatika scheme and other additional sources, such as the fund of the Member of the Legislative Assembly for the area (Khan, interview). With this money, the GPs constructed toilets in most of the households. Different GP leaders recognised that there was support for the BPL from TSC before constructing, and for BPL and APL from Nirmal Vatika (Gujri Kheda GP, group interview) and that when people started covering faeces, the GP organised building for all (Gadbadi Mal GP, group interview).

Community mobilization happened along with top-down encouraged **subsidised** toilet construction, and ended up being a victim of the rushed implementation. A member of a committee said that if she could not convince other women of the advantages of sanitation, she told them to accept the construction of a latrine in her plot by the government and then use it whenever they felt like (Sharma S, interview). The motivational activities were happening mostly due to the pressure from the

administration, principally through the Panchayat Secretaries or elected leaders. After some days or a few weeks, the perseverance of the committees decayed, as they felt little support and reward from authorities and whistling was tiring and generated conflicts (Tomar, interview).

In addition, the champions at the district and block level were successively **transferred** few months after the start of the campaign, feeling that "it was not a finalized process" (Tiwari A, interview 25 feb). New officers showed less interest in sanitation and demand generation quickly dropped, reverting to the traditional approach (Kakumanu, interview 28 feb).

A temporary peak in 'promotion' of sanitary behaviour took place at the time of the verification for the NGP awards, principally by pressurization from GP (Tiwari S, interview). After that, priority of sanitation decreased dramatically (Gambhir GP, group interview) and sanitation activities ceased almost completely.

The following table compares the sanitation campaign in Khandwa with the CLTS approach in theory. Programming aspects, which are the founding principles, are diametrically opposite. Hardware perspectives are very different, too. Software aspects are similar, although motivational activities in Khandwa were short and less relevant than the hardware.

	Sanitation in Khandwa	CLTS
Programming	P1: Supply-led P2: Top-down P3: Collective P4: Widespread subsidisation P5: Outsider facilitates, government builds, community generates demand (Natural and traditional leaders)	P1: Demand-led P2: Bottom-up P3: Collective P4: No external subsidy P5: Outsider initially facilitates, then community leads (Natural Leaders)
Hardware	H1: Technological fix built H2: Soak pit with bricks, rural pan in cemented platform, low-cost superstructure	H1: A priori technical support should be avoided H2: Low-cost latrines are well considered for initial steps
Software	S1: Emotional S2: Shame and disgust S3: Local through a participatory triggering session S4: Hardware more important than software. Short initial triggering and short follow up	S1: Emotional S2: Health and disgust S3: Local through a participatory triggering session S4: Software main component. Short initial triggering and medium term follow up

Table 10: Sanitation campaign in Khandwa and CLTS in theory compared

5.5. Mandi district

Context

Mandi district (see map in Figure 14) has a population of 1 million, 94% living in the rural area (Government of India 2012). Its ten blocks and 473 GPs extend over an intricate mosaic of mountain ranges, hills and valleys (Vaidya 2009).

Half of its population depends upon farming, principally vegetable and fruit cultivation and milk production. Private sectors and government jobs (especially the army) are also significant employment sources (DOA 2009). Due to the successful land reform, there are almost no landless people in the district (Rana, interview).

The district ranked last (out of 11) in Human Development Index in 2002 (Planning Commission 2003). It is however considered as a progressive district (Sandup, interview), partly due to the high level of literacy, reaching 82% of the rural population, with an 18 point gap between men and women (Government of India 2012). An important challenge of the district is the lack of road connection, originating from its topography and affecting to half of the villages in the district (Vaidya 2009).

Mandi rural sanitation coverage was from 28% in 2005 (Vaidya 2009).

Policy Process

As said before, Panda, deputy commissioner in Mandi district, became a champion of the new sanitation policy in Himachal Pradesh, and decided to pilot the new policy, starting in August 2006 (Sandup, interview). Himself and Sandup, Project Officer of the District Rural Development Agency, had the power to shape the campaign (Sandup, interview) and were very motivated and committed to the **CLTS narrative**. To support planning and implementation, the NGO Mandi Saksharta Evum Jan Vikas Samiti was engaged as support organisation. This organisation had been working since 1992 in literacy and educational campaigns in rural Mandi and had an extensive network of collaborators that reached almost every GP in the district.

The NGO, however, did not fully endorse the CLTS narrative. This disagreement was clearly observable in the training organised by the consultancy Knowledge Links in the district in early 2007, in the frame of the support of WSP to the sanitation campaign of Himachal Pradesh. There, the NGO revolted against Kamal Kar for presenting the CLTS tools as the only way to generate behaviour change, discarding the tools they used in their previous campaigns (NGO worker, interview) and not taking into account their local sensibility.

The NGO –being Mandi the TSC pioneering district– was thus the first to articulate the new narrative inspired in the CLTS narrative and accepting its broad principles, but rejecting the triggering tools. This narrative endorses the importance of demand-led sanitation interventions, without subsidies, focusing on the collective and with the community in the leader's role. However, CLTS taboo-breaking triggering session was absent of their discourse. Actually, CLTS tools are portrayed as offensive and not suited to a literate context like Mandi. Instead, the narrative runs, their traditional Kala Jatha (community or street theatre) is better adapted to the local culture and more effective for motivating the community to change their sanitation behaviour (NGO worker, interview). The Kala Jathas spread the message and prompts discussion about the topic treated and are an institution in the district (Sharma L, interview). They "get into the heart; people feel identified (…) and get ready to listen" (Sharma L, interview), paving thus the way for subsequent sensitisation tools like leaflets or –in the case of sanitation– door to door visits.

The administration in Mandi was sensitive to these arguments and endorsed this slightly adapted narrative: “we did a Community Led campaign, focused on behaviour change, but with other methodology” (Panda, telephone interview).

The **policy process** in the district was analogous to that described for the state level. An institutional framework was created in order to align the interests of relevant actors with the narrative promoted.

Political priority was given to sanitation by the highest district officers –“it was the major programme” (Panda, telephone interview)–, for instance, continuously taking part in related field visits (Gupta B, interview). A clear message of the importance of the campaign and the need to implement it in a mechanical way was transmitted “down the line” (Panda, telephone interview). The distribution of the national NGP awards by the Prime Minister in 2007 also raised the profile of the campaign, at a point of time where the MVSSP and the support of HP politicians were still in their dawn.

The priority message was complemented with the acknowledgement that the sanitation campaign was a challenging one. Coherently, monitoring mechanisms established did not only serve to promote accountability, but also to learn and improve. On one hand, mixed block level teams visited the GPs in order to verify claimed ODF status, making the monitoring system more reliable. On the other hand, the District Water and Sanitation Mission –chaired by the Deputy Commissioner– had monthly meetings and created a safe learning environment where to “jointly address the problems that the officers were finding while implementing the campaign” (Panda, telephone interview). Similarly, Sub Divisional Magistrates and Block Development Officers participated in regular block level meetings, where progress was reviewed and detailed specific problems were tackled (Kumar V, interview). These mechanisms “secured the position of the government officers” (Panda, telephone interview) and NGO workers implementing the campaign, thus doing away with contradictory professional incentives and minimising over-reporting –although it was not completely eliminated.

Regarding village level actors, the new narrative generated some suspicions initially: GP Pradhans (elected heads) felt that it would be difficult to change sanitation practice without latrine subsidies (Sandup, interview) and, in some areas, villagers felt that the GP body had some hidden benefits or interests in the campaign (Thakur, interview). Several rounds of discussion and involvement of district authorities soon neutralised this climate of distrust. Further efforts were done increase the interest of these actors in the campaign, especially motivating the GP Pradhans to lead the process and involve the CBOs in their area (Sandup, interview). Their successes in sanitation were recognised through public functions with authorities, awarding ceremonies and diffusion through the media, indirectly also fostering competition between GPs (Panda, telephone interview). In the case of GP Pradhans not willing to lead the campaign, there was still the alternative of the coordinator the NGO had in almost every GP (trusted local that collaborates in the campaigns for a small incentive) taking a more proactive role (Lal, interview).

The strong institutional structure aligned the interests of all relevant actors with the narrative promoted and allowed a quick and effective change of the policy pathway. The administration, the NGO and the GP Pradhans were committed with the campaign and worked together to make it successful (Sharma L, interview).

Resulting intervention

The result was a well-planned **intervention** (Sandup, interview) coherent with the narrative promoted; inspired in community-led principles, but using endogenous tools for generating behaviour change.

Kala Jathas (street theatre) were the primary tool for bringing the sanitation message to the villages (Panda, telephone interview). They were staged by local groups hired by the NGO and took place also at the ward (sub-village) level. The plays were sometimes combined with school rallies and camps with speeches (Chauhan TK, interview). Village assemblies –Gram Sabha and Upgram Sabha– were also used to raise the issue (Phukrer GP, group interview).

After the GP level 'inauguration' of the campaign, a sanitation committee was created in order to go **door to door** and explain and persuade every household to stop open defecation (Chauhan TK, interview). It was formed by relevant persons in the GP: elected leaders (Pradhan, Uppradhan, ward heads), government employees (Panchayat secretary, teachers, anganwadi workers, health workers, etc) and respected people (Rana, interview). Either in the sanitation committee or on their own, CBOs were also involved, especially women groups, but also youth groups and self-help groups (Sandup, interview). The committee was coordinated by the Pradhan or the NGO coordinator in the GP (Sandup, interview), making small teams in order to reach every household in every ward, which was not an easy task in a mountainous area with scattered population like Mandi.

Door to door campaigning soon proved to be very effective and became the most utilised tool (Chauhan TK, interview), although there were also variations depending on the locality. In some GPs only the Pradhan or the coordinator went door to door, while in others there was no door to door campaigning at all. A few GPs –mainly of Seraj block– used CLTS triggering (Bharti, interview) to motivate behaviour change, while others used conventional IEC tools–wall painting, leaflets or greeting cards– or more innovative ones –local songs, water tests or best toilet competition.

Regarding the messages conveyed, the Kala Jathas are reported to have addressed all the drivers of behaviour (Sandup, interview), being sensitive to the local situation. Door to door campaigning even allowed the tailoring of the communication to the specific concerns of each household. But overall, the principal message transmitted was the relationship between sanitation and health, generally illustrated through the pollution of drinking water due to open defecation. Other popular messages, according the interviews in the quick visits to different GPs, were related to the disgust of working in a dirty field, the convenience of having a clean environment or the insecurity and embarrassment faced by children, girls and women.

Finally, specific strategies were devised for those that were sticking to open defecation, once they were a small proportion of the GP. First, advice or support was offered to the household if there was any obstacle for changing the behaviour, as could be water availability. In some GPs, they also reported to have pressurised stubborn open defecators, generally with menaces of fines or of withdrawing their ration card or their access to MNREGA scheme. But many times political rivalry or personal conflicts were the main obstacle for households not being collaborative. In these cases,

external teams were sent, envisaging that these could bridge internal tensions and persuade them to change their behaviour or even become motivators (Sharma L, interview). A further measure devised at a later stage of the campaign was to send a letter from the Deputy Commissioner to the specific household defecating openly (Sharma L, interview).

Regarding **subsidisation**, the initial plan was to use the incentive funds collectively, but GoI did not allow it (Bandhari, interview). After two years without incentives, these started to be distributed to BPL households in GPs verified to be ODF by an external monitoring committee (Panda, interview and Prakash, interview), formed at the block level with government employees and members of CBOs from different areas (Chhamyar, group interview).

There were thus no external subsidies, but those considered critically poor –according to local identification, not to the BPL lists– were helped in many GPs, once they had decided to change their behaviour. For instance, community might support these families carrying stones or digging pits (Bhali Dhar GP, group interview) or offering manual work to each other (Tandi GP, group interview). In other cases, materials were provided mainly in the form of latrine pan or cement bags (Lal, interview and Chhamyar, group interview), either for free or as a loan. This support –initially depending on the GP– was institutionalised in 2007 in some blocks, with the creation of a revolving fund (Prakash, interview). Later on, the start of the MNREGA employment scheme (2007) also helped provide the households with cash, allowing many to upgrade their first low-cost toilets (Bharti, interview and Thakur, interview).

The intervention was not a short-term one. NGP and later on MVSSP verifications, added to the block level ODF verification and the follow-up efforts of the district (Lal, interview), sustained the tension and the priority of sanitation at the GP level for a significant period of time.

The vibrancy of the campaign declined after 2008, with the transfer of the Deputy Commissioner and the Project Officer that had started the campaign (Sharma L, interview). However, the momentum in the first years made the programme in-built into the administration routine (Panda, telephone interview). Also, the continuity of the NGO, not subject to the frequent post-transfers, helped to keep sanitation among the district priorities.

Thus, at the time of the research, the sanitation campaign was still going on, but there were some indicators of decline. For instance, in some GPs targeted in the last phase, tensions regarding incentives were reported (Bharti, interview), at a time when these were being distributed in neighbouring ODF GPs and their amount had been increased by GoI. Also, the fact that most of the GPs in the district had been verified as ODF had led to some relaxation among GP Pradhans, NGO and government officers, in the sense that not enough attention was being devoted to addressing the remaining challenges, such as the pockets of open defecation in 'ODF villages'.

The following table compares the sanitation campaign in Mandi with the CLTS approach in theory. Programming aspects are overall coincident, with the nuance of the role of the actors, namely that the leadership is put in hands or more established leaders in the case of Mandi. No significant variations

can be perceived regarding hardware. However, differences emerge in software aspects, where Mandi has opted for less emotional and crude options.

	Sanitation in Mandi	CLTS
Programming	P1: Demand-led P2: Bottom-up P3: Collective P4: No external subsidy P5: Outsiders initiate the campaign, then community leads (elected leaders, NGO coordinator and CBOs)	P1: Demand-led P2: Bottom-up P3: Collective P4: No external subsidy P5: Outsider initially facilitates, then community leads (Natural Leaders)
Hardware	H1: No a priori technical support H2: High-cost latrines with stone soak pits most common (except for poor households)	H1: A priori technical support should be avoided H2: Low-cost latrines are well considered for initial steps
Software	S1: Emotional and rational S2: Health, cleanliness, convenience, safety… S3: Local through theatre and door to door campaigning S4: Software main component. Long-term perspective	S1: Emotional S2: Health and disgust S3: Local through a participatory triggering session S4: Software main component. Short initial triggering and medium term follow up

Table 11: Sanitation campaign in Mandi and CLTS in theory compared

5.6. Budni block

Context

Budni is one of the five blocks of Sehore district (see map in Figure 14). The district has a population of 1.3 million people, 81% living in rural areas (Government of India 2012). Extrapolating growth rates, the population in Budni would be approximately 150.000 people, most of them living in its 63 GPs. The block lies on a plain north of the Narmada River, two-hour drive from Bhopal, the state capital.

The district has primarily an agricultural economy based on wheat, rice, maize and soybean.

The district ranks 22nd in Human Development Index, among the 45 districts in MP (Government of Madhya Pradesh 2007). 68% of the rural population is literate, with a 26 point gap between men and women (Government of India 2012). It has high concentration of Scheduled Castes, with a proportion of 20.3% (Khanna, Khanna 2005, p.47). These are considered to be comparatively worse-off than other groups (Raman 2010). In Budni block, 46% of the rural households are BPL, the highest proportion in the district, which has an average of 34% (Government of India 2012).

Sehore had a rural sanitation coverage of 16.6% in 2001 (Government of India 2012). Data only for Budni block are not available.

Policy Process

In 2010, back to Madhya Pradesh in Budni block (Sehore district), the CEO Baledi block Ajith Tiwari –one of the CLTS champions from Khandwa district– had been transferred to Budni block. His experience in Khandwa, in spite of the problems and the quick transfer, had left in him the belief that CLTS could help make villages ODF (Tiwari A, interview 12 feb). Therefore, he wanted use the approach in the sanitation campaign of Budni block, in spite of non-supportive district officers. But coincidentally, the new WASH specialist in UNICEF MP had also had past experiences with CLTS in Africa and was willing to introduce the approach in MP, first at the block level in order to showcase its potential and later on scaling up. Thus, Budni block CEO and UNICEF MP allied around the **CLTS alternative narrative** and tried to introduce a fully coherent campaign in Budni in 2010.

Analogously to what had been witnessed in Khandwa district –and elsewhere in MP–, other actors involved in sanitation could potentially derail these efforts, as their interests would be better protected by the covert narrative. But the experience in Baledi block had left valuable insights in the CEO (Tiwari A, interview 12 feb), which were useful for him to steer the **policy process** in Budni differently. In order to achieve this, actions were taken to reorient interests, reduce the power of opposing actors and involve and establish alliances with other actors.

Firstly, instead of making officers work as master trainers or **facilitators** –which had proved problematic in Khandwa–, a more flexible stand was taken in Budni. Thus, the training of trainers conducted by Feedback Ventures Foundation was open to block employees wishing to join, but also to village 'leaders', such as Sarpanches (elected GP heads), GP secretaries and local people in general.

Once trained, the master trainers worked as CLTS facilitators in the block, voluntarily for the first months and later on getting a payment, though low. This 'filtered' the participants, ensuring that only motivated and committed people would take part. The idea was that anyone that was there "for the money, should leave" (Tiwari A, interview 25 feb). The transparency in the management of the available funds by the CEO also proved them his commitment and reinforced the idea that it was a joint effort.

The strategy was effective, especially in leaving out government officers –at least those not motivated. This prevented hurdles derived of pernicious interests such as technocratic inertia, contradictory professional incentives or competing priorities. In words of the block CEO, "government people will be related to money and will have many other tasks and excuses not spend a lot of time in the villages" (Tiwari A, interview 25 feb).

As a whole 17 people were working as CLTS facilitators in early 2011, one third of those trained and only four were coming from the administration. They were committed with their mission, although they also had further interests, such as improving their skills, raising their professional profile for future jobs, being recognised by authorities or becoming popular in the area (Tiwari A, interview 25 feb). The point was that these interests were compatible with their commitment, as the accountability system was coherent with the aims of the campaign. The CEO stressed the need not to rush,

acknowledging that sanitation was not a short-term issue, but needs sustained quality efforts: “CLTS is analogous to raga music; you have to keep playing one note! Good results will come” (Tiwari A, interview 4 apr). Also, achieving ODF was identified as the aim, instead of getting NGP awards. Combined with the frequent field visits of the CEO, this was meant to eliminate the over-reporting resulting of the combination of awards and an unreliable monitoring system. Over-reporting was thus sharply reduced, although not completely eliminated, as the strong political priority and recognition for sanitation successes ended up constituting a kind of incentive to downplay the gaps and report GPs as ODF even if they were not fully covered.

The drawback was that the team of master trainers ended up being composed only by men and too small for the size of the block, demanding additional efforts from those involved.

Moving to a second group of actors, the **villagers**, the lesson from Khandwa was that if the grassroots did not engage properly with the campaign, results would not sustain (Tiwari A, interview 25 feb). At least four measures were devised in order to involve people at the village level and hand over to them the leadership of the sanitation efforts.

First, a structured plan or exit strategy was made: master trainers would initially support the village monitoring committees created during the triggering, but slowly withdraw. Successful monitoring committees would be institutionalised some months later, becoming Village Water and Sanitation Committees elected in the Gram Sabha (GP assembly), which would be entitled to take decisions and manage funds from related programmes such as solid and liquid waste management or health (Master Trainers, group interview).

Second, mistrust towards the campaign was fought. On one hand, similarly to what had happened in Khandwa, the empowering discourse coming from a traditionally paternalistic administration generated suspicions. The already explained non-administrative profile of the master trainers’ team helped counter this. In addition, in parallel to the household level campaign, sanitation in schools and anganwadis was being improved through the sanction of specific projects and the collaboration with the education department. This sent a clear message that the administration was serious about sanitation and was also willing to play its part. On the other hand, the zero-subsidy policy, in spite of preventing corruption, also boosted doubts of fraud, at a time when publicity of latrine subsidy was very high (Narayan, interview 30 mar). To fight this, the CEO intervened directly anywhere he was needed to clarify these questionings. His reputation of honesty and strictness, forged by previous anti-corruption measures, gave him legitimacy to do that.

Third, recognition was given to village level actors. The CEO himself (a few times accompanied by UNICEF) was going regularly to the field visiting almost every village in the area in order to monitor progress and recognise the work of the committees. This contributed to the acceptance of and involvement in the campaign, and boosted the enthusiasm of many motivators (Tiwari A, interview 25 feb). At a later stage, a meeting of monitoring committees was organised, and awards were given to the 3 best performing ones in the block. This complemented the national NGP awards, in which Sarpanches (village heads) get the credit (Manjarkui GP, group interview).

Fourth, after some time it was perceived that resistance to the campaign was many times related to politics, caste or personal rivalry. Master trainers thence decided to make efforts to identify the opposing people as soon as possible and involve them as committee members so that they felt part of the process (Narayan, interview 1 apr).

A final group of relevant actors, lined with the covert narrative, was above the block level; principally the **district Sehore administration**, which had an interest in a standard implementation of the TSC and wasn't very appreciative of the changes introduced in Budni. The lack of support crystallised in pressure to disburse subsidies and Nirmal Vatika funds (Tiwari A, interview 25 feb), as well as in inflexibility in funds reallocation, for instance to support master trainers, which would have contradicted the standard procedures of the TSC.

The involvement of UNICEF MP was key to overcome these obstacles. Firstly, because funds were made available to support the work of the master trainers (Tiwari A, interview 25 feb). Secondly, because a partnership with UNICEF MP reinforced the position of the CEO Budni, making him more able to resist the pressures to spend the funds. Thence, he could delay the disbursement of the incentives and save Nirmal Vatika for the post-ODF stage.

In these ways, the alliance between block CEO and UNICEF slowly managed to create a web of committed actors around the CLTS narrative that managed to shape the **policy pathway**.

Resulting intervention

The result was a well-planned **intervention** coherent with the CLTS narrative, both in tools and principles.

CLTS **triggerings**, conducted in every GP, were the main tool utilized for the campaign. These were preceded by pre-triggerings: short visits or interviews to get an idea of the GP social fabric and foresee when and where to make the triggering session (Narayan, interview 1 apr). The triggerings combined most of the tools CLTS proposes, such as the transect walks or the glass of water, in order to analyse the situation, reflect on health consequences, generate shame and disgust (Sachivs, group interview) and ignite a collective desire to change the situation.

However, many adaptations were made. For instance, language tended to be less challenging than it is in the CLTS theory. Being from the same block, sometimes from neighbouring village, master trainers had to be more careful in using crude language or in challenging too much during the triggering. Else, they might be kicked out of the village (Narayan, interview 1 apr). They also innovated and started using their own tools, for example one related to cows: cows eat the shit that is on the grass, and the shit ends in the milk people drink. The tool was especially effective for Hindus, due to the religious connotations (Narayan, interview 1 apr).

At the end of the triggering, the names of those volunteering were noted down, creating village monitoring committees (Narayan, interview 1 apr). The committees ideally included established

leaders (Sarpanch, GP secretary, anganwadi worker, etc.) and Natural Leaders emerging from the triggering, both males and females (Narayan, interview 30 mar). These committees were responsible for patrolling open defecation areas early morning, persuading people to stop open defecation and pressuring those persisting in their unsanitary behavior (e.g. not covering faeces). The committees started this task the day after the triggering, accompanied by a couple of master trainers, and continued on their own until OD was stopped. Some committees did further activities, such as the maintenance of sewage line (Mathni GP, group interview) or sweeping the roads.

Another task they had was to check over the latrine construction process. Latrine construction was generally undertaken by the households at their own expenses, as no household **subsidies** were provided. Some monitoring committees offered support in case a household should need it, be it in the form of manual labour, soft loans or centrally arranged cheap materials. Those worse-off were encouraged to build dry latrines in order to immediately stop open defecation. For the second step of the sanitation ladder, pour-flush latrine with a one by one metre soak pits made out of bricks (convertible to twin pit) was promoted.

After the triggering and initial **follow-up** visit, the role of master trainers was to support the monitoring committee in their activities or reorient the process, trough visits every 6 to 8 days (Master Trainers, group interview), with decreasing frequency as the committees gained in autonomy. Obviously, the process varied according to the GP. Some committees were very proactive and others needed a master trainer continuously guiding them (Narayan, interview 1 apr). Where ignition was insufficient or where committees did not fulfil their tasks adequately, intensity of follow up was reduced, waiting for the communities to reflect, see progress in neighbouring areas and call the master trainers to restart the campaign (Narayan, interview 30 mar). But as whole, it was noted that resources –especially for transportation of master trainers– were too scarce to make enough follow up everywhere (Narayan, interview 2 apr).

The campaign was in its first half year during my research, and when I did a short follow-up visit three months afterwards. This description of the intervention represents thus only the **initial phase** of the campaign. Many challenges were arising and things were evolving and improving during the visit. For instance, master trainers reported that it was becoming difficult to trigger in remaining GPs, as they were already aware that there was a ‘tati’ (shit) team moving around in the area (Narayan, interview 1 apr). Also, the rainy season was creating problems where dry latrines were being used. Some trainers had dropped from the team, but replacements had been found: outspoken Natural Leaders emerging from the villages (Tiwari A, interview 26 jul). Also, new horizons were opening both for Budni and for district Sehore as a whole, with Sanjay Goel (CLTS champion as district CEO in Khandwa) becoming commissioner of the district (Master Trainers, group interview).

The following table compares the sanitation campaign in Budni with the CLTS approach in theory. Programming and software aspects are overall coincident, with the nuances described regarding triggering tools described earlier. The hardware aspects are slightly different, with more guiding in Budni as what CLTS envisages.

	Sanitation in Budni	CLTS
Programming	P1: Demand-led P2: Bottom-up P3: Collective P4: No external subsidy P5: Outsider initially facilitates, then community leads (Natural Leaders)	P1: Demand-led P2: Bottom-up P3: Collective P4: No external subsidy P5: Outsider initially facilitates, then community leads (Natural Leaders)
Hardware	H1: Specific but flexible design presented at the end of the triggering H2: Dry latrines as initial step and then brick soak pit latrines encouraged	H1: A priori technical support should be avoided H2: Low-cost latrines are well considered for initial steps
Software	S1: Emotional S2: Health and disgust S3: Local through a participatory triggering session S4: Software main component. Short initial triggering and medium term follow up	S1: Emotional S2: Health and disgust S3: Local through a participatory triggering session S4: Software main component. Short initial triggering and medium term follow up

Table 12: Sanitation campaign in Budni and CLTS in theory compared

5.7. Discussion

In the previous sections I have analysed the policy process around the introduction of CLTS in the case study areas, which are related to the first research question. I briefly synthesise the three cases here, comparing them and teasing out the most relevant elements.

In Khandwa district (MP), the state policy was not enabling, with top-down pressure to achieve quick results in order to achieve as many NGP awards as possible. In addition, the champions introducing the approach had not powerful enough allies –and were soon transferred anyway– and could thus not counter the many interests converging behind the covert narrative. The resulting policy pathway had thus to accommodate these interests, resulting in a mixed intervention, combining CLTS tools with principles from the covert narrative.

In Mandi district (HP), the state policy was enabling –embracing the CLTS narrative– and there were sanitation champions in key positions of the district administration, along with an NGO with experience in rural development work. They were able to set up a campaign inspired in the CLTS principles –though without the CLTS facilitation tools, using their traditional sensitisation tools instead– and realign the interests of the main actors involved, making a coherent intervention possible.

In Budni block (MP), being at a lower administrative level, the strongly committed block CEO and from UNICEF in a supporting role formed a network strong enough to introduce the CLTS as the approach for the rural sanitation campaign, despite an overall contrary state policy (though less intense than at that point of time of Khandwa). The previous experience of the CEO in Khandwa allowed him to design a strategy to offset interfering interests, and the intervention was implemented coherently with the CLTS narrative.

Comparing these cases, several elements are highlighted.

Mandi and Khandwa districts, for instance, were part of the same strategy of introduction of CLTS by WSP at a similar point of time, but their policy processes –and the coherence of the resulting interventions– were opposite. This divergence is explained by the strength of the leaders championing sanitation, as well as by the governance quality in the two districts and the states sanitation policies and overall contexts. And what about Khandwa district and Budni block, also with very different policy processes, but located in the same state and even sharing the sanitation champions? The main explaining factors here were the administrative level (district or block), the governance quality, the experience of the leaders and the external support received, along with a slightly different state sanitation policy, related to the time elapsed between both interventions. Finally, Budni block and Mandi district both showed enabling policy processes and coherent interventions, despite their many differences (in scale, state policy, etc.). The common elements were the strong and committed leadership of the sanitation champions at the administration and their 'management' of the policy process through a careful and strategic design of the sanitation campaign.

I now systematise and develop these elements, discussing them and placing them in the theoretical framework used, trying thus to answer the research question of how the policy processes around the introduction of CLTS shaped the resulting sanitation interventions.

From the case studies, it becomes clear that the policy process around the introduction of CLTS is determinant of the sanitation interventions taking place locally. These efforts take place in a setting where there is an already existing sanitation policy, generally with differing perspectives. The process of introduction of CLTS can thus be understood as the contraposition of **narratives** about sanitation. The available policy space will determine the extent to which the CLTS narrative becomes dominant and results in a coherent intervention. The policy space depends in turn on the strength of the agents supporting the different narratives and on the interests of the various actors involved, which can make the space remain small or expand. The cases also show that it is difficult that a pure CLTS narrative becomes totally dominant; some mixture or variation is to be expected as a result of the policy process. This is especially true if the introduction is taking place at some scale, as more actors will be involved: Budni block, being the only sub-district experience, was the case where the intervention was closest to the CLTS approach. The changes and adaptations of the narrative are however not necessarily negative. It depends on whether they are just the outcome of the accommodation of private interests of powerful actors, or they result of a fair contraposition of perspectives. Khandwa district, where the resulting intervention was a mixture of approaches suiting vested interests, illustrates the first situation. Mandi district, in turn, exemplifies the second situation: its sanitation campaign resulted from a modification of the CLTS narrative aiming to adapt the sensitisation tools to the local sensitivity.

As said, the **interests** of the actors involved play a key role in the policy process around the introduction of CLTS. The most relevant one is the political priority given to sanitation, which is needed at various levels in order to make any sanitation intervention work, even more a 'different' one like CLTS. This need of political priority is partly related to the various interests playing against the CLTS

narrative that have to be countered. For instance, contradictory professional incentives and technocratic inertia amongst the government bureaucrats favour quick top-down and supply-led interventions, incompatible with CLTS. Similarly, the corruption and political patronage prevalent in many areas of rural India privilege construction-oriented and subsidy-based campaigns. Khandwa exemplifies how these interests can derail the efforts to introduce the CLTS narrative. Budni block and Mandi district in turn, show that the interests can be avoided in order to reduce their bearing on the intervention, or even partly realigned so that they favour the new sanitation policy. In both cases, corruption and patronage was countered by eliminating the subsidy and delaying the household incentive. Part of the competing interests from bureaucrats were neutralised by reducing their role in the campaign, engaging an NGO as support organisation in the case of Mandi and training people coming from the grassroots as CLTS facilitators in the case of Budni, where an NGO such as the one in Mandi was not available. Mandi also managed to set up an institutional framework that made the professional incentives of the involved bureaucrats coherent with the policy.

Whether the interests playing against the CLTS narrative derail the initiative to introduce the approach depends mainly on the power of the **agents** promoting each narrative. When networks formed to promote the CLTS narrative include powerful, experienced and committed champions –and networks supporting other narratives are weaker– it is easier to respond to the negatively affecting interests. High level administrative authorities at the block or district are at the centre of these networks. The states are also very relevant, either strengthening the networks or weakening them. HP (Mandi) illustrates the first option, with a sanitation policy coherent with CLTS, while in MP (Khandwa and Budni) the state policy is contrary to CLTS. International organisations such as WSP and UNICEF are also relevant components of the network. In Budni, for instance, the support of UNICEF was useful to counterbalance the negative effects of the state and district sanitation policy. At the end, whatever the configuration of the network, the point is whether they are strong enough to steer the policy process in order to allow a sanitation intervention coherent with the narrative promoted.

But the networks are not pre-existing. At the beginning, there may be just a single agent trying to introduce the CLTS narrative, generally an external organisation. Their advocacy work, trainings and exposure visits are very useful at this stage, when there is a need to legitimise the new narrative, gain allies and form a network around the CLTS narrative. There is a need however to quickly connect with enthusiastic and powerful champions from within (administration or government), if the policy space is to be expanded. The amplitude of these networks is also important, as the over-reliance of champions involves a risk due to the frequent post transfer in the Indian administration. Khandwa and Mandi, being the two experiences with some years, both witnessed the transfers of the sanitation champions. In Mandi though, the fact that the support organisation and many different people in the administration had become part of the network supporting the new narrative was very useful to diminish the negative consequences.

Obviously, the **context** is also important, be it facilitating or complicating the work of the agents trying to introduce the CLTS narrative. Of the many elements playing a role, the most relevant ones are related to the governance quality. Where corruption is rampant and the relationship between citizens and state is one of mistrust, it is more difficult to introduce the CLTS narrative. On one hand, interests

playing against it are reinforced and, on the other hand, a government campaign with a discourse focusing on empowerment and community mobilisation sounds strange both at the grassroots and at the administration. On the contrary, less corruption, a more efficient and trusted government and administration constitute a more enabling environment for the introduction of the CLTS narrative. Himachal Pradesh illustrates the latter, while Madhya Pradesh has a more challenging context. Nevertheless, local context matters, too. In Mandi, for instance, the governance quality was exceptionally good, even for HP, with a historically positive relationship between citizens and the administration (e.g. successful literacy campaigns). In MP, there were also differences between Budni and Khandwa. Unfairly compensated evictions due to the construction of a dam in Khandwa had left an extremely negative political climate, with little space for honest collaboration. In Budni, the reputation of strictness of the block CEO and some measures against corruption had left a slightly better governance quality.

All these elements are relevant to understand how the policy processes around the introduction of CLTS shape the resulting sanitation interventions. The next stage is to see whether these interventions contribute to sustainable sanitation and how they do it. I deal with this in the next chapter!

LIST OF INTERVIEWEES

Bandhari, B S	Current Project Officer in the District Rural Development Agency Mandi District, HP	Interview	1 June 2011
Bharti, Mohan	TSC Coordinator of Mandi Saksharta Evum Jan Vikas Samiti in Seraj block 2, Mandi district, HP	Interview	4 June 2011
Bhavna	Faculty Member in HP Institute of Public Administration	Interview	24 May 2011
Chauhan, Tera Kram	Current IEC coordinator TSC in Mandi district, HP	Interview	1 June 2011
Chhamyar GP	Pradhan, Uppradhan and two mahila mandal members in Chhamyar GP, Balh block, Mandi district, HP	Group interview	2 June 2011
Gadbadi Mal GP	Assistant secretary and others in Gadbadi Mal GP, Baledi block, Khandwa district, MP	Group interview	25 February 2011
Gambhir GP	Two members of the Village Water and Sanitation Committee in Gambhir GP, Baledi block, Khandwa district, MP	Group interview	17 March 2011
George, Robin	Current TSC coordinator, Rural Development Department, HP	Interview	24 May and 27 May 2011
Goel, Sanjay	District CEO in Khandwa district, MP, during the first year of the sanitation campaign	Interview	30 July 2011
Goutam, M	Consultant at State Water and Sanitation Mission in MP	Interview	31 January 2011
Gujri Kheda GP	Panchayat Secretary and Sarpanch Gujri Kheda GP, Baledi block, Khandwa district, MP	Group interview	22 February 2011
Gupta, Bhanu	Block Development Officer in Gohar block, Mandi district, HP	Interview	3 June 2011
Kakumanu, Arokiam	WSP member in MP	Interview	2 February and 28 February 2011
Kapur, Depinder	National Coordinator in India WASH Forum	Interview	27 August 2011
Khan, Shahina	Anganwadi worker and Village Water and Sanitation Committee member in Borgaon Kurd GP, Baledi block, Khandwa district, MP	Interview	24 February 2011
Lal, Nand	TSC Coordinator of Mandi Saksharta Evum Jan Vikas	Interview	1 June 2011

	Samiti in Balh block, Mandi district, HP		
NGO worker	TSC Coordinator of Mandi Saksharta Evum Jan Vikas Samiti in Mandi district, HP	Interview	1 June 2011
Panda, Subhasish	Deputy Commissioner in Mandi district, HP, during the first two years of the sanitation campaign	Telephone Interview	29 August 2011
Phukrer GP	Pradhan, Uppradhan, Panch and mahila mandal member in Phukrer GP, Seraj block, Mandi district, HP	Group interview	5 June 2011
Prakash, Jioty	Current Data Entry Operator TSC in Mandi district, HP	Interview	31 May 2011
Rana, Santosh K	TSC Coordinator of Mandi Saksharta Evum Jan Vikas Samiti in Seraj block 1, Mandi district, HP	Interview	4 June 2011
Sanan, Deepak	Principal Secretary in the Rural Development Department, HP, during the first 2 years of the campaign	Interview	16 July 2011
Sandup, Tashi	Project Officer in the District Rural Development Agency Mandi District, HP during the first three years of the sanitation campaign	Interview	26 May 2011
Sharma, Lalit	TSC Coordinator in Mandi district, HP, and member of Mandi Saksharta Evum Jan Vikas Samiti	Interview	23 June 2011
Sharma, Sushma	Member of the Village Water and Sanitation Committee in Gambhir GP, Baledi block, Khandwa district, MP	Interview	17 March 2011
Shittal	TSC Coordinator in Khandwa district (MP)	Interview	22 February 2011
Shukla, J P	Knowledge Links (consultancy)	Interview	18 January 2011
Sinha, Ajay	Feedback Ventures Foundation (consultancy)	Interview	7 April 2011
Soni, Prakash and Morya, Harish	CLTS facilitators in Khandwa district, MP	Group interview	23 February 2011
Thakur, Bandar	Pradhan GP Chamyar, Bahl block in Mandi district (MP) during the campaign	Interview	2 June 2011
Tiwari, Ajith	Block CEO in Baledi block, Khandwa district (MP) during the first year of the sanitation campaign and current Block CEO in Budni block, Sehore district (MP)	Interview	12 February, 20 February, 25 February, 4 April and 26 July 2011
Tiwari, Sanjay	Current block CEO in Pandhana block, Khandwa district (MP)	Interview	23 February 2011
Tomar, Bagvat Singh	Secretary in Billod GP, Baledi block, Khandwa district, MP	Interview	24 February 2011
Verma, Anupma	Knowledge Links (consultancy)	Interview	10 April 2011
Vishal	Current TSC cell member, Rural Development Department, HP	Interview	25 June 2011
Bhali Dhar GP	GP TSC coordinator, Uppradhan and others in Bhali Dhar GP, Seraj block, Mandi district, HP	Group interview	5 June 2011
Tandi GP	Pradhan and GP Secretary in Tandi GP, Gohar block, Mandi district, HP	Group interview	6 June 2011
Kumar, Vinay	Sub Divisional Magistrate Balh and Sadar blocks, Mandi district, HP	Interview	22 June 2011
Narayan, Ram	Facilitator in Budni block, Sehore district, MP	Interview	30 March and 1 April 2011
Sachivs	Meeting of GP secretaries in Budni block, Sehore district, MP	Group interview	4 February 2011
Mathni GP	Meeting in Mathni GP, Budni block, Sehore district, MP	Group interview	2 March 2011
Master Trainers	Facilitators Budni block, Sehore district, MP	Group interview	26 July 2011
Manjarkui GP	GP secretary and Monitoring Committee members Budni block, Sehore district, MP	Group interview	26 July 2011

When relevant for the interviewee, period in post is indicated, 'current' meaning 'by the time of the interview'

6. Analysing the contribution to sustainable sanitation

Previous chapter *Go to Index* *Next chapter*

6.1. Outline of the chapter

In the previous chapter, relevant issues of the policy process were teased out and the resulting interventions at the case study level were teased out. This chapter deals with the developments taking place at the ground level as a result of these interventions, presenting evidences regarding the extent to which these interventions led to sustainable sanitation, as defined in the third chapter, and the mechanisms involved in the process.

I start the next section narrating the sanitation story of the Killod GP –the one selected for the in-depth study in Khandwa district– since the sanitation intervention started until the point of time of my research, presenting the most relevant data collected. I close the section assessing the extent to which sustainability was achieved both in the GP and in Killod GP as a whole and teasing out the most relevant dynamics observed. Analogously, the third section starts in Chhaprahan GP and zooms out to Mandi district, and the fourth section with Manjarkui GP for Budni block. In the final section, the discussion, I synthesise and compare the sustainability in the three cases and elaborate and systematise the most relevant dynamics.

6.2. Killod GP and Khandwa district

The sanitation story of Killod

Killod is a GP of Baledi block, Khandwa district, situated in the plains of black-cotton soil around the Narmada river. Most of its 493 families live in its main concentrated village, while 25 of them reside in a separate hamlet (right upper corner in the map).

Figure 16: Map of the area of Killod GP
(adapted from GoogleMaps 2011)

The population is Hindi speaking and mostly Hindu, with a 7% of Muslims and a couple of Sikh families. Caste-wise, the population is very diverse. Approximately a quarter belongs to Scheduled Castes, another quarter to Scheduled Tribes (Barela and Korku), one third to Other Backward Castes (medium) and the remaining sixth to General Castes (high). A little less than half of the households are below the poverty line.

Farming, based on wheat, cotton and soybean, along with buffalo, cows and goats herds, is the main livelihood in the village, with many households' livelihoods depending on agricultural daily labour. There are some family businesses, mostly related to trade and services, as well as a couple of Self Help Groups, mainly dedicated to preparing the meals for education centres.

It takes 25 minutes to reach the nearest town, Khirkiya, although the condition of the tar road is poor.

Electricity is available from 8 pm until midnight and from 3 am to 5 am. At these times, three water points are served from a tubewell. The rest of the day, people rely on handpumps – which not always have enough water, especially in the dry season– or private tubewells. Regarding sanitation, 56% of the households have access to latrines (survey).

There are five schools, three anganwadis, a primary health centre and a recently built hospital. This concentration of services is related to the fact that Killod GP hosts the Baledi block headquarters.

Figure 17: Anganwadi, Killod GP
The author

As a whole, the GP seems to benefit from several public services and government schemes. However, partly due to the corruption in the area, the benefits do not reach most of the population, and there are very significant inequalities. There are strong divides among gender, caste or ethnic lines. Scheduled Tribe households, for instance, show worse living conditions than other households. The same happens with female-headed households (generally widows), which can be considered the most vulnerable in the area. The schemes they benefit from (pension and ration card for cheaper food) are not enough to raise their families, so they have to struggle for earning their livelihood, thence neglecting household chores such as fetching water, as well as the care of their children. One of the widows said that, in addition, she did not get much support from neighbours or the Sarpanch, as she belonged to a low caste.

A further excluded group is the approximately 30 families that settled in the GP over the last decade after being evicted from the nearby Indira Sagar reservoir area. Oustees from the dam were in general insufficiently compensated, which, coupled with the increase of prices due to the huge amount of people displaced, impeded them to resettle in adequate conditions. This was very much the case of these 30 families, who could only afford small plots in the separate hamlet of the GP. In addition, they are many times excluded from many services. For instance their anganwadi is relatively far and shows a very poor condition, as compared to the other anganwadis. Also, few households from the area got a latrine during the sanitation campaign… but let's start the sanitation story from the beginning.

In 2007 the TSC arrived to the GP, which had just 24% latrine coverage and not more than 19% use (survey).

Two district engineers organised and facilitated a triggering session in the GP, which was attended by approximately forty people. Different CLTS tools were used, such as the glass of water and the transect

walk, which reportedly served to raise awareness among the villagers that participated. However, ignition of collective action was not achieved.

Anyway, a Village Water and Sanitation Committee (VWSC) of ten people was formed. It included a couple of motivated Natural Leaders, but primarily members were people close to the Sarpanch. In fact, I should not be talking about the Sarpanch, but about 'the one acting as Sarpanch', as the real Sarpanch at that point of time was his mother… Anyway, he became the leading member of the committee, mainly because he had pressure from higher authorities to achieve quick results in order to get the NGP award, but also due to personal vested interests. Thence, he arranged the campaign so that toilet would be constructed and used as soon as possible. For instance, to motivate the members of the committee he offered them a daily payment. The committee, with sporadic guidance of the facilitators, focused on pressurizing people that were trying to go openly: they went to the open defecation 'routes' at peak time (early morning and evening) in order to find people on their way to defecate openly, whistle or point them with torches and stop them. Meanwhile, the Sarpanch also arranged the construction of toilets both in BPL and APL households, although only BPL households were eligible for cash incentive… The funds for these supposedly post-construction incentives were complemented with other funds (probably made available by the block or district from other schemes or programmes) and were used for buying cement, bricks and a latrine pan per household. The materials were distributed and masons were hired by the GP to build the toilet substructures (up to the pan level). Households were supposed to dig a pit and provide water for the construction, as well as to put up a superstructure, even if temporary (Kishoori, interview, see list of interviewees at the end of the chapter).

As a result of the work of the committee, many families stopped going openly and started using their latrines (Ram and Ram, group interview), using a rudimentary superstructure made out of sticks and sarees. The rest just performed their necessities farther away or changed their defecation timings. Among them were around 15% of the households, which had been excluded from toilet construction (survey). Also, the distribution of materials was skewed towards the best connected households; those politically allied with the Sarpanch got more materials than those in the hamlet, for instance. Along with suspicions of corruption in the construction process (diversion of materials) some tensions were generated.

Due to this, the committee started loosing both motivation and legitimacy to pressurise others to stop defecating openly. There were strong arguments with some villagers. Coupled with the fact that their promised reward never arrived, this led to the committee stopping its activities after few weeks.

At the end of the campaign, households with latrine (even if just the substructure) had increased from 24% to 85% (survey). It is difficult to know how many were using the latrine regularly, but reportedly many reverted to open defecation when the committed stopped working (Kishoor, interview); the supply-led character and the little emphasis on awareness raising had not led to a generalised change of behaviour. Some villagers also criticised that the cloths superstructure did not offer enough privacy.

The peak in latrine use was probably when the NGP verification team went to the GP, as the households were strictly pressurised to use the latrines. This does not fully explain, anyway, how the

GP achieved the NGP, being ODF status one of its conditions. It is said that the NGP verification on that year (2008) was very lax all over India. Some interviewees also insinuated that there had been some sort of corruption, too.

What is clear is that after the achievement of the NGP, sanitation fell off the political agenda, culminating a decreasing evolution of political priority since the transfer of the block CEO that had championed the campaign. This intensified the decline of the sanitation achievements, as no efforts were made to address the emerging challenges.

The temporary superstructures, for instance, quickly started to get damaged with winds and rains, especially during the rainy season. Many households reverted to open defecation instead of replacing or upgrading the superstructure.

Also, lack of rains short after the campaign lessened the availability of water and consequently further reduced latrine use, as fetching water for flushing implied an extra effort. The problems linked to water scarcity were reported in 18% of the households (survey) and came up recurrently in the interviews, too. Open defecation was observed to be more abundant in areas with less access to water. The problem seemed nevertheless to be more related to politics than to scarcity. Some evidences are the limited number of water points from the centralised system, the lack of maintenance of a well that never dried or the shift of a tubewell from one area to another (in order to 'save' the money for the new pump).

But there was an even more complicated challenge, namely the damage of the squatting platforms. This happened due to the scarcity and low quality of the materials used (Ram R, interview), which some interviewees related in turn to the will of the Sarpanch to cut down costs and divert resources. At the end, the platforms many times consisted of a thin layer of cement, which had too much sand in the mixture. No enough bricks were put below the platform, which was resting almost only on the soil. Water from rains –latrines had no roof– and from flushing leaked through thin cracks of the platform or through the joints between platform and pan and progressively washed away the soil below it and deteriorated the platform. A few months after the latrines were built, many platforms started to sink or even collapsed. Depending on the case, it could result in unstable, inconvenient or impossible latrine use, as well as in chokes and leaks due to the effects on the connection of the pan to the pipe. Thus, many households fell off the sanitation ladder, instead of moving up, which was only reported in 8% of the households (survey).

By the time of my research, in mid-2011, the sanitary situation was average. Only 63% of the household had a working latrine (survey). This means that out of every 10 toilets built during the campaign, only 6 remained usable by 2011. Overall, regular toilet use was reported to be 56% (survey, ±11% confidence interval and 95% confidence level). 7% households reported non regular use.

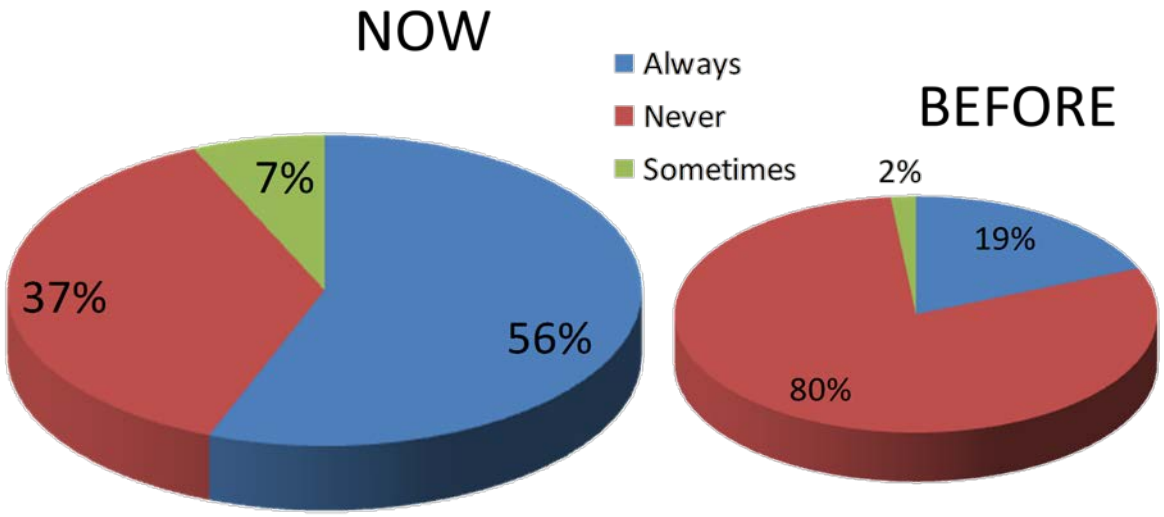

Figure 18: Toilet use in 2011 (left) and before the sanitation campaign (right) in Killod (survey)

There was thus widespread open defecation in the GP, the main OD areas being located at least 40 metres away from the houses. Regarding hygiene practices, one third of the households used soap for hand washing, while ash was used by approximately 60% (survey).

The condition of 90% of the operational latrines was good regarding cleanliness, but around a third and a fourth had structural problems, especially in the platforms. One third had permanent roofs and half had permanent doors (survey). The most common latrine design was pour flush latrine with a brick-made soak pit. Self-built latrines had Orissa pans on tile platforms, while latrines built during the campaign had rural pans on cement platforms.

The outskirts of the main village and, especially, the hamlet had less coverage and the latrines were in poorer conditions, probably because fewer efforts were devoted to the construction of latrines there. It was observed, however, that latrine availability was not necessarily related with the income level of the household. For instance, several household without latrines were observed to have satellite TV.

Apart from that, disabled people faced specific problems, as latrines had not been adapted to their needs. A young man with a disability in his legs, for instance, had to go in the open instead of using the latrine in his household, as he was not able to squat in it.

To what concerns non-household sanitation, the schools and anganwadis had been alien to the campaign and their sanitary conditions were overall worrying. Two anganwadis had access to latrines, but not the third one, having mainly oustees and Scheduled Tribes children. Four out of five schools had no usable latrines, and two of them had little access to water, too. This included a private excellence school (high quality distinction), which had closed the latrines, reportedly because they had plenty of space for going openly in their big compound (headmaster, interview). And in the government middle school, open defecation was practiced daily around the dismantled toilets, very close to where the mid-day meal was cooked. Only the government higher secondary school had operational latrines, but these were always very dirty, so students tried to avoid using it. The

awareness of the students was also average, which is easy to understand taking into account that some of their teachers defecate in the open, and one even said that he enjoyed, for him it was like a health morning walk (teachers, interview).

As a whole, the TSC in Killod GP did not manage to eliminate open defecation, although it was considerably reduced and OD areas were 'pushed' out of the village.

Despite some efforts to focus on behaviour change by the block and district facilitators, the campaign lacked a focus on awareness raising and there had been no collective change of mindset. This is illustrated by the fact that half of the households surveyed did not give any specific answer to an open question about the benefits of sanitation.

From the benefits mentioned, convenience was the most mentioned. Privacy and safety for women followed, with health in the third position.

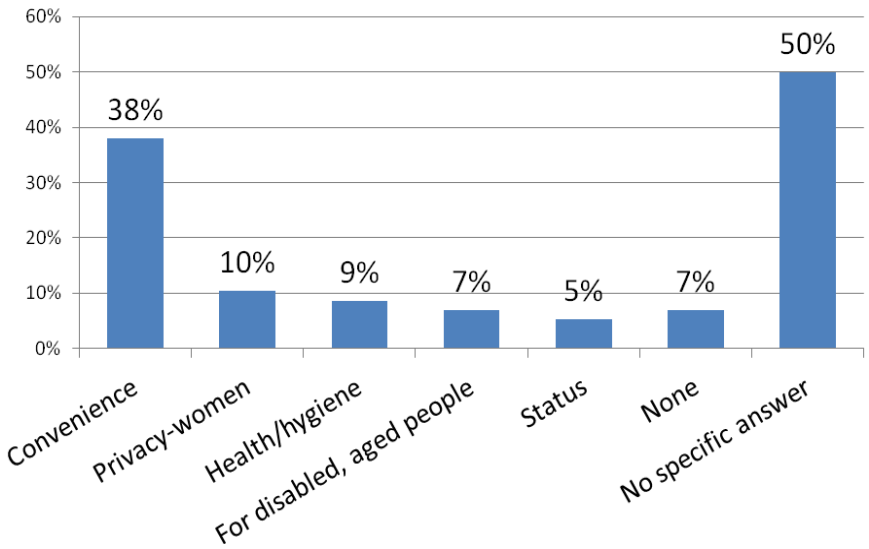

Figure 19: Percentage of times a benefit category was mentioned in the responses to an open ended question in the survey in Killod
(survey)

This reflects that sanitation was viewed from a private convenience-related perspective, without a collective dimension; apart from a 9% that mentioned health, all the benefits cited depend on the use of a latrine by the individual. This is clearly identified by the households using toilet only sometimes, which are 7% according to the survey, although the real percentage might be higher. These include, for instance, households where women and elder used latrine, while children and men went in the open. Also households where the latrine was saved for the rainy season, when it is especially convenient; in the meantime all defecated in the open in order to avoid the pit filling up (Meena, interview).

Sanitation sustainability in Killod GP and Khandwa district

Can we consider that Killod achieved sustainable sanitation?

Sustainability implies first the **maintenance of ODF** status into the long term. Killod progressed well initially, trebling its coverage, but by the time of the research 40% of the progress had been lost, and just a bit over a half of the households were using latrines regularly. This, coupled with the lack of facilities in the schools, resulted in lots of shit in several spots surrounding the village. The situation did not augur any relevant changes in the medium term. There had been no community-wide change of mentality, and open defecation was seen by many as an acceptable or even enjoyable practice. A villager synthesised this perspective brilliantly, when he recognised that he felt much better going in the open, but that anyway "it is good to have a toilet, you can use it when you are in a mood for it" (Dewra, interview).

Sustainability also has a **social justice** dimension, in which Killod performed poorly. Awareness raising was limited to those taking part in the triggering session. The rest only experienced the follow-up, which was limited to pressurising those defecating openly. Many were thus excluded from the possibility of learning and potentially changing behaviour. In addition, GP-led construction of toilets was discretional and plagued by corruption. Some household were completely excluded. The distribution of materials was biased towards better positioned families, instead of privileging those needing support. For instance, the latrines for the oustees living in the hamlet had received fewer materials. The poorest had thus many times latrines in worse conditions: damaged platforms made toilet use inconvenient and lack of superstructure implied a lack of privacy, too. They were thus also excluded from the benefits of sanitation. Similarly, the gain of having a clean surrounding was unequally distributed: those living in the village boundaries had open defecation excreta near their houses, while those in the centre did not suffer this problem so much. The perspectives of the least powerful were also not taken into account. First, those of schoolboys and schoolgirls, who had defecate in the open and no sanitation facilities were available in the schools. A further specific case is a disabled man whose latrine was not adapted to his needs and had to go openly anyway.

But to what extent does the story of Killod illustrate what happened in **Khandwa district**?

Killod is an average GP in Khandwa district regarding the aspects described at the beginning of the previous subsection, despite of the particularity of hosting the headquarters of Baledi block. It has therefore more services (high schools, hospital, etc.) and presents a slightly more advanced context. The presence of oustees is common in many other areas of the district, as the reservoir affected a considerable share of the territory. The quality of the intervention was better in Killod GP and Baledi block in general, as other blocks did not follow any sanitation strategy or give any priority to the TSC. The exception was Pandhana block, which followed Baledi closely in terms of successful introduction of CLTS.

Killod was selected for being amongst the best performing GPs in the district regarding sanitation. After realising its poor situation, I used comparative visits and results sharing to contrast this fact. All over the block –the best in the district, with 21 NGP awards, out of 28 GPs– abandoned latrine substructures were common and schools without operational facilities were the norm. Average NGP awarded GPs presented more open defecation than Killod, and the worst ones had ridiculous coverage rates and rampant open defecation. Borkheda Kurd GP, a success story in Pandhana block, presented a considerable coverage gap and reported reversion to open defecation after some initial progress, too.

With the rest of blocks having performed worse in sanitation –as recognised by key informants from the administration– it can be said that Killod stood for the best performing GPs in Khandwa district. At the district level sharing of evidences, the results of Killod were considered remarkable (Shittal, interview). Recent census data also reinforced these evidences; the coverage jump in Killod GP (24% to 63%) was over five times bigger than the total jump of rural Khandwa, from 10.1% in 2001 to 17.4% in 2011 (Government of India 2012). The performance in the district was anyway almost twice the state level jump (Government of India 2012).

The lack of change of mentality and the few perspectives of improvement described for Killod, also applied to the other GPs in the district, there was no clear community-wide change of mind regarding sanitation was observable in other GPs, and there were no signs of improvement in the close future.

Regarding social justice, the shortcomings in Killod were also taking place in many GPs in the district, especially affecting oustees and households belonging to Scheduled Tribes and Scheduled Castes.

Relevant dynamics

I have already described the intervention taking place in the frame of the sanitation campaign and its outcomes in terms of sustainability, both for Khandwa district in general and for Killod GP in particular.

But to complete the picture, we need to better understand the processes taking place in the frame of the sanitation campaign, that is, the dynamics that influenced the degree to which progress towards sustainable sanitation was made. Drawing on the insights from Killod, but also from other GPs in the district, I here try to tease out these dynamics.

Mention must be made first to the more **contextual** social dynamics in which the sanitation campaign took place. The governance problems in rural Khandwa –widespread corruption, lack of transparency, political belligerence, citizen mistrust and political patronage– did not represent an ideal scenario for a government campaign oriented to change behaviour and using committees of villagers. Strong inequalities, social divides among castes and income levels and problems with alcohol and drugs also posed a challenge for igniting collective community-wide changes. More specifically on sanitation, open defecation was a socially acceptable and quite widespread practice.

The most relevant dynamics at the moment of the **intervention** were also in the social realm, involving leadership, relationships and institutional frames. The implementation of the campaign was very dependent on the Sarpanches, which operated without any transparency and many times skewed the distribution of resources towards their political allies, excluding the most vulnerable households. This resulted in suspicions about their honesty in the management of the funds for sanitation, undermining the involvement of those in the sanitation committees, and preventing the participation and investment of the households in upgrading or repairing the latrines. In addition, once the NGP verification took place, the interest of the administration decreased dramatically, and the campaign practically finished. The consequences of these dynamics, observable not only in Killod GP but in almost every GP visited, were a very low appropriation of the process –and the latrines– amongst the

villagers and the failure to change the social perception about open defecation. These two aspects are key to understanding the level of vulnerability of the sanitation progress in the face of the challenges that emerged afterwards.

As said, several challenges aroused in **later stages**, mostly due to interacting technological and environmental dynamics. Three of them have been described along with the sanitation story of Killod GP, but were taking place in many other GPs, too. The first one came with the rainy season. Initially, bad weather was a driver to make many families use their latrine. But winds and rains started damaging the saree- or plastic-made superstructures and many latrines did not anymore offer privacy and were abandoned (Gadbadi Mal, group interview). Secondly, some areas with low access to water reverted to open defecation during droughts (Billod GP, group interview). This was related to the fact that the pour-flush system was the only technology promoted (Soni and Morya, group interview), neglecting alternatives more suited to dry areas. Finally, the widespread degradation of the latrine platforms as a result of the poor quality of construction and the water from the rains leaking through, also resulted many times in a reversion to open defecation. Due to the political patronage, the least powerful household had generally received toilets of less quality and thence, they were the most affected by all these problems.

There were further dynamics that did not appear in Killod, but that were relevant in other areas. Very similar to the last one –in its relation to the poor quality of construction– was the damage of pits by the effect of the 'excavation works' of moles, observed in Pandhana block (Sachiv Borkheda Kurd, interview). In other areas, households migrating seasonally to work spent several months in other regions, leaving the latrines in the elements. Rains, animals and lack of maintenance generally made the latrines non-operational by the time they were back (Kumtha GP, group interview). A further challenge found in several GPs were the new households settling in the villages. These households, either coming from elsewhere or separating from joint families, did generally have no latrine, implying an increase of open defecation, which was considerable in areas where many oustees from the reservoir had arrived at a late stage. In a few cases, however, this dynamic had become to some extent a driver to change sanitary practice, as the open areas that could be used for open defecation had been reduced (Gambhir GP, group interview).

As said, no adequate responses were given to these challenges, as the appropriation of the campaign was very low and the cultural perception of open defecation had not changed widely –and the administration had lost any interest in sanitaiton. As a consequence, many latrines were abandoned, households reverted to open defecation and most of the progress achieved was lost.

6.3. Chhaprahan GP and Mandi district

The sanitation story of Chhaprahan

Chhaprahan is a Gram Panchayat in Gohar block, Mandi district. It is situated along a link road in the west bank of a tributary to Beas River. 426 families live in the GP, principally in the five main villages spread around its steep hillsides of clay soil, although there are also several small and remote clusters. Hindi and Mandiali are the two languages spoken.

Figure 20: Map of the area of Chhaprahan GP
(GoogleMaps 2013)

Despite the caste diversity, with approximately half belonging to Scheduled Castes (Kholi, Chamar, Lohar and Hasi) and half to general (high) castes (Mahajan, Rajput, Brahmin and Nath), it is an overall homogeneous society, with all families practising Hindu religion. There are several temples in the GP, some of them very magnificent, taking into account the population. Big ceremonies are celebrated there from time to time.

There is also a Youth group organising sport activities, but few further collective initiatives (Self Help Groups, Women Groups) are active.

The social divide is small, in the sense that people's aspirations are overall not mediated by caste, partly due to the fact that many low caste families are well-off, having accessed government jobs such

as the army. This is reflected in the low incidence of poverty, with just 14% of the families are in the Below Poverty Line (BPL) list. The main economic activities are cow rearing and farming, with wheat, maize, dhal, rice and soybean as main crops. Also relevant is the share of people working as government employees (10%), as agriculture labourers, through the MNREGA employment scheme and with family businesses (shops and workshops).

Regarding education, there are five anganwadis (nursery) and three schools (two primary and one middle). Primary health attention is not available in the GP (only in the neighbouring one), although there are two medical shops.

Figure 21: Primary School Koot, Chhaprahan GP
The author

It takes thirty minutes to reach the nearest urban area (Pandoh) through a tar road. A bus covers the route ten times a day.

Electricity works continuously and piped water is also widely available (from the river, stored in tanks) and continuous for three fourths of the households (survey), with the rest relying on handpumps and/or seasonally suffering shortages. All household have sanitary latrines nowadays (survey).

As a whole, the area has witnessed an improvement of education and income since the 1990s, with raising living standards: better houses, TVs, etc. But with sanitation, the evolution was quite different, with a much later and more rapid change. In fact, in 2005 only one third of the households had latrines.

And it looked like a challenging issue to improve; a past sanitation campaign distributing cash to the families had failed. Only few households had built latrines, which mostly fell in disrepair short after, due to poor use and maintenance.

In this context, in November 2006, the Total Sanitation Campaign arrived to Chhaprahan. In a meeting at the Gohar block headquarters, the campaign was explained to the Pradhans (GP elected leaders). Motivated by the idea of improving his GP and by the award competition, the Pradhan of Chhaprahan committed himself to make his GP ODF as soon as possible. Once back in the GP, he started working for it. The issue was discussed in the Gram Sabha and Upgram Sabhas (GP and ward assemblies) and he went door to door visiting the households and motivating them to construct a latrine and change their habits. But he was not alone; a group of around ten people supported him, including ward panches (sub-village elected leaders) and former authorities, which felt a responsibility for the GP (Singh N, interview). Some anganwadi workers took part, too, as their superiors (education department) told them to collaborate (anganwadi worker Surah, interview). The TSC coordinator of the NGO in the GP was also involved, mainly as social work, as the reward received was very low (Chauhan RL, interview 13 jun). They thus managed to cover most of the large GP area and visit lagging-behind households repeatedly.

Some support came from outside, too, in the form of functions and kala jatha (community plays) to raise awareness about sanitation. Also external teams (sometimes including higher authorities) participated from time to time, going door to door.

These tools were very effective for motivating behaviour change. The door to door visits served to convey the message of the ill-effects of open defecation and address the doubts and problems of the specific households regarding sanitation. Poor families (independently of their BPL or APL status) committed to change their sanitary behaviour that asked for help received material support from the Pradhan (apparently from his personal resources), be it bricks, cement or even latrine pans.

Many households quickly understood and built latrines, becoming a critical mass which, combined with the insistence and support of the GP body, dragged the rest of the households. In words a villager: “Before we were all going in the open. Toilet use was a new culture, but everybody changed so we had to change too!” (Raj T, survey).

Thence, in a couple of months, almost every household had built a latrine, even if very low cost ones. Through sustained motivation, the process continued and latrine use became practically universal in one year (Chauhan RL, interview 13 jun).

The construction had been undertaken by the families, arranging materials and either hiring a mason for the manual work or building on their own. Many built relatively low cost latrines, with basic designs and cloths as superstructure. But in 2007, the MNREGA employment scheme arrived to the GP and many households used the resulting income to upgrade their latrines. As a whole, more than a quarter of the households (survey) reported having moved up the sanitation ladder.

At a similar time, and with ODF status already verified, the latrine incentive of 1100 Rs from the GoI was distributed to BPL families (Gupta, interview). It was reported not to have played any relevant role, as only 44 families were eligible and the amount represented a fourth of the average investments these households had done in their latrines (Chauhan RL, interview 15 jun).

The GP received to Nirmal Gram Puraskar in 2008, as well as the awards block level and district level MVSSP, the HP sanitation competition, in the subsequent years. For these, several external teams were sent to verify sanitary situation progress, which also helped sustaining the efforts to remain open defecation free. Also, the prizes were invested in sanitary improvement, such as the construction of drains in some areas of the GP and of toilets for temples (Chauhan RL, interview 15 jun).

There were also challenges, nevertheless. For instance, about 10% of the toilets constructed were severely damaged due to the frequent landslides or heavy rains (survey). This was partly related to the inadequate location of the latrines, for instance in the furthest corner of the plot around the households, which is more vulnerable. The families affected had to share toilets with relatives until they could rebuild their latrine. They were eligible to the support from the government scheme to support those affected by floods, although the schemes is not agile.

Also 13% of the households (survey) reported to have suffered water scarcity, especially those in high areas and during drought periods. Coupled with the fact that there was not a single rural latrine pan –requiring less water for flushing–, it affected toilet use negatively. In some cases, solutions were found, such as the installation of rainwater harvesting systems, in the frame of a government scheme.

By the time of my research, in mid-2011, the sanitary situation was very good, with 100% toilet coverage and regular use reported by 96% of the households (survey, ±6% confidence interval and 95% confidence level), while in the other 4%, toilet use varied according to the family member or to external factors like water availability.

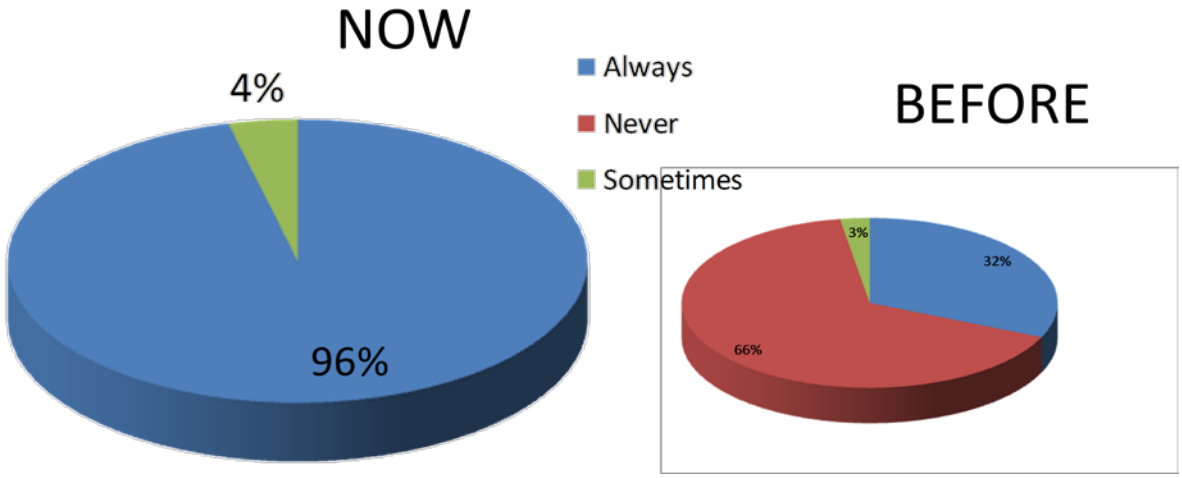

Figure 22: Toilet use in 2011 (left) and before the sanitation campaign (right) in Chhaprahan (survey)

The usage gap was so small that it was impossible to incidentally come across any trace of open defecation. Hand washing with soap was widespread, with less than a tenth of the household not using it (survey). 90% of the latrines (survey) presented good condition, both structurally and regarding cleanliness. Permanent roofs and doors were found in 88% and 77% of the households, respectively (survey). Households in far flung areas were observed to have latrines in a less adequate condition, and to be poorer in general. The most common design was pour flush latrine with soak pit and Orissa

pans. Almost all the pits were made out of stones, and two thirds had also a layer of cement covering the stones –but not the bottom, in order to allow soaking. The platforms were mostly made out of cement, but a quarter of them that used tiles. Structures were made out of bricks predominantly, and in half of the cases these were plastered with a cement layer (survey).

A problem, small but widespread, was the lack of mosquito nets in most of the pipes used for the exhaust gases from the pits, causing the presence of mosquitoes in some areas and bad smell in some areas. This problem is consequence of a wrong technical decision, as exhaust pipes are not necessary for soak pits, predominant in the GP (97%, survey). A further problem observed in two cases was that the pits were very close to rivers or rivulets, representing a potential risk of water contamination.

Regarding non-household sanitation, the GP building had a toilet, though in need of repairing (water leaked and the door did not close fully). The three schools have toilets, apparently well maintained, and the awareness about sanitation among the students is high. All five anganwadis have access to toilets, too, though mostly shared with school or the family of the private building in which they are located. Of the four main temples in the GP, however, three have no functional toilets (under construction, but unfinished for years). Although most of the temples are far from the households, the need of a latrine is obvious, as open defecation was visible near one of the toilets, and a big function was held in one temple.

Concerning solid waste, there was no clear management system, but no big accumulations were visible either. For liquid waste, there were open drains in some areas.

As a whole, it can be said that a big change was experienced in Chhaprahan GP regarding sanitation practices, reaching universal access to improved sanitation and eliminating open defecation in a short period of time.

The community clearly perceived the benefits of this evolution. The most cited one (see figure 23) was that everything was clean, making it easier to walk on any path of the GP, reducing smells and flies and eliminating the worries about 'hidden' excreta while cutting grass for the cows.

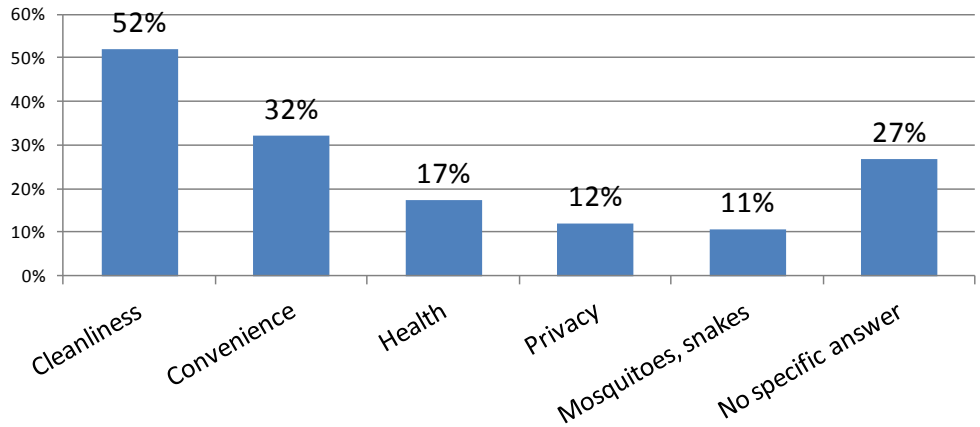

Figure 23: Percentage of times a benefit category was mentioned in the responses to an open ended question in the survey in Chhaprahan
(survey)

Having a latrine was also valued for the convenience it offered, as defecating openly implied walking long distances and was especially uncomfortable at night or when it rained. Health was also mentioned, and in specific areas dramatic decreases of diseases like diarrhoea, malaria and cholera were reported (Chhol ward, group interview). Further benefits were privacy (especially for girls and women) and safety from snake and mosquito bites. The fact that cleanliness and health were so up on the list of perceived benefits shows that the internalisation of the collective dimension of sanitation was very significant.

Sanitation sustainability in Chhaprahan GP and Mandi district

Can we consider that Chhaprahan achieved sustainable sanitation?

Having jumped from 32% to 100% coverage in a short period of time, Chhaprahan managed to **maintain ODF** status, at least until mid-2011, when the research took place. By that time, the environment was free of excreta, despite some sporadic cases of open defecation during religious events and about a 4% of the households who did not always use latrine. Several evidences indicated that ODF would maintain into the future. For instance, the GP has proved to be able to cope with emerging challenges. Also, the GP authorities established some precautionary measures to dissuade potential open defecators. First, new households cannot benefit from any of the government schemes until they have a toilet. Second, those defecating openly can be fined –although nobody was ever actually fined (Chauhan RL, interview 13 jun). Apart from these practical issues, the best guarantee of maintenance of ODF status is the change of mentality or cultural change that could be clearly perceived: open defecation was not anymore considered as an acceptable practice. A villager explained it as follows: “Now people are even coming back from the field to the latrine if they feel the need; it has been a change of lifestyle” (Pal N, survey).

Regarding the social justice dimension of sustainability, no evidences of exclusion were found in Chhaprahan. The perspectives of the least able were also considered, and they received help in the form of materials. This support was local, and directed to those that were considered to need it.

To what extent does the story of Chhaprahan represent what happened overall in **Mandi district**?

Chhaprahan is an average GP in Mandi district regarding the aspects described at the beginning of the previous subsection, such as increasing life standards, literacy or income level. Also in remoteness and scattered settlement pattern, although regarding these two there is a lot of variability across the district. Finally, the good governance is also present in other GPs in the district, although rarely to the extent it is in Chhaprahan, with a very peaceful situation and almost no conflicts or divides between village groups. Chhaprahan has however a less vibrant civil society, as compared to other GPs with strong CBOs. Regarding the intervention, is was the average among the GPs targeted in the first phase, which was implemented with more enthusiasm but less experience than the subsequent phases.

As was expected when it was selected, Chhaprahan GP was among the best performing ones in Mandi district, as visits to other GPs confirmed. There is probably just a handful GPs having a situation as

good as Chhaprahan has. But from what was observed in the quick visits in the district, a big share of the GPs in Mandi were very close ODF status, with an estimated regular use of latrine over 90%. With the disperse settlement patterns, as most GPs in Mandi have, such a gap has a very low impact in the environment. There were also many GPs with bigger gaps, which generally increased with the remoteness of the area, reaching 50% in the worst cases observed. Recent Census data revealed that rural sanitation coverage reached 82% in 2011 (Government of India 2012), which is overall coherent with these estimations. The data also confirm the extraordinary success of the sanitation campaign in Mandi district regarding household coverage. Coming from 28% in 2005 (Vaidya 2009), the 54 percentage points increase represents the highest coverage jump in Himachal Pradesh and probably in India, taking into account that HP is the state in India with the highest decadal coverage increase (Government of India 2012).

The cultural change observed in Chhaprahan was also perceivable in many other GPs, although not always as pervasive. And similarly to what happened in Chhaprahan, this change had still not included public sanitation: not to use latrine was an undesirable practice for the villagers, but the fact that there open defecation was practiced by outsiders or during social gatherings was still accepted. While deficient public sanitation facilities did not constitute a big problem in Chhaprahan, it resulted in significant spots of open defecation in some GPs. These were mainly GPs with markets, fairs, tourist spots or religious sanctuaries and events; GPs near highways, particularly if with bus stops or road restaurants; and those requiring seasonal agricultural labourers. In some cases, there were also problems regarding the facilities in schools, anganwadis and GP buildings. The district TSC cell proved to be conscious of many of these shortcomings, and willing to address them (Sharma L, interview).

Regarding social justice, the good situation found in Chhaprahan was found not to be an exception in Mandi. Evidences of support to the least able were found in many GPs, too. Nevertheless, there were also GPs where the sanitation gap was affecting those in a more vulnerable situation, for instance living in far flung areas or in land-slide prone areas. Also, the specific environmental conditions of a part of the households were not taken into account. For instance, those living where water availability was low or in rocky areas did not receive the technical support needed for finding a sanitary solution that would suit them.

Relevant dynamics

We have seen that the sanitation intervention was very successful in Chhaprahan GP particularly, but also in Mandi district as a whole. But which were the relevant dynamics enabling or hindering this process? I answer the question drawing on the insights from Chhaprahan, but also to other GPs in the district.

Regarding the overall **context**, there were several social dynamics in rural Mandi that were supportive for a community-led sanitation campaign. These included increasing life standards, high literacy and income levels, social harmony, good governance, presence of community-based organisations, etc. Also past successful campaigns such as the literacy campaign organised by the district in collaboration with a local NGO. An inhibiting aspect was the scattered settlement pattern, which lowered the

perceived nuisances of open defecation and also made it difficult to bring the message of sanitation to all the households. Regarding the perception of sanitation, it was a widespread and thus socially accepted practice before the campaign.

The most significant dynamic during the **intervention** was the concerted efforts to change the sanitary situation. Due to the carefully designed intervention in Mandi, with various successive competitive awards and events for recognising the successes in sanitation, many actors at the local level were motivated to make the campaign work. As Chhaprahan exemplifies, the Pradhans were the most relevant ones, committing themselves, taking a leading role in the process and involving other formal and informal leaders in the GP. Also anganwadi workers and the NGO sanitation coordinator in each GP were involved. In many other GPs, community-based organisations –especially women groups– were also very involved, even leading the process in a few cases.

All these people in committees went door to door conveying the importance of sanitation and trying to convince people to change their behaviour. Being perceived as peers and having a dialoguing attitude, they were listened to and gradually more and more households started to change their minds and behaviour. The coherence of the message of the committees with the ones coming from the administration –through community theatre, camps or media– also contributed to this change of mind.

The already cited increasing life standards played also a relevant role in this, as it had created a latent demand for sanitation. With most of the necessities satisfied, access to several services, TVs, etc. sanitation had somehow been left behind, probably due to the taboo surrounding it. Thence, when the message of sanitation arrived, it was somehow seen as a logical next step and priority was given to it by the households.

A further dynamic that emerged in good performing GPs, was the one related to imitation described for Chhaprahan; households that were first reluctant, seeing that more and more people were changing their practices, decided to do the same. This is a clear sign of the cultural change that was taking place in these GPs, with a new social perception of the practice of open defecation becoming dominant. This change was present in almost every GP, although with different degrees of intensity.

In **later stages** of the process, new dynamics aroused and either reinforced or challenged the sustainability of sanitation. A very positive socio-technical dynamic was the movement up the sanitation ladder taking place when the households started earning money for they work in the frame of the MNREGA employment scheme. This was observed not only in Chhaprahan, but in many GPs in Mandi (Thakur, interview).

Regarding the challenges, they were mainly a combination of technological and environmental dynamics. The campaign had not had a strong focus on technology, and latrine design was generally decided by the mason and the household. This resulted in some cases in choices that cannot be considered as technically appropriate, negatively interacting with environmental dynamics. For instance, the amount of latrines destroyed due to landslides –one of the main challenges in areas of the district with similar geography to Chhaprahan– was related to the location of the latrines in the

verges of plots (Sharma L, interview). It has to be said, however, that most families rebuilt their latrines after some time, generally sharing with relatives in the meantime. Another problem was related with the use of pipes for the exhaust gases, which was not exclusive of Chhaprahan. These pipes, unnecessary in the prevalent soak pits, were many times not well maintained and became a source of smell and mosquitoes. A more environment-related challenge, though partly related to the predominance of non water-saving pans, was the water scarcity in some specific areas of the GPs. Not so prevalent in Chhaprahan, this caused some problems in the initial stages of the campaign, but solutions were found through rainwater harvesting and storage in the frame of MNREGA (Lal N, interview).

Overall emerging challenges were addressed adequately. The cultural change that had taken place was very strong and the households strived to remain using latrines. The long-term commitment of the administration also played a role, as did the successive awards, which guaranteed sustained interest in sanitation by many GP leaders –GPs awarded at the block level, for instance, could candidate the year after for the district level award.

The coverage gap in the district seems to be located mostly in challenging areas, in terms of remoteness and backwardness. GPs targeted in the last phase have comparatively worse records, too, which is related to the decay of the vibrancy of the campaign in the last years, as mentioned in the previous chapter. Also, where the campaign did not yield initial significant progress, further positive dynamics were weaker, such as the imitation effect or the motivation for the competitive awards – which were out of their reach.

6.4. Manjarkui GP and Budni block

The sanitation story of Manjarkui

Manjarkui is a GP in Budni block, district Sehore, situated in the plains of black-cotton soil of the Narmada river. It is a concentrated village of 210 families live there, except 15 of them living in a hamlet 500 metres away.

The population is Hindi speaking. Around 80% of the households belong to Other Backward Caste category, and just below 10% belong to Scheduled Castes and Tribes. Hindusim is practiced by 70% of the household, while 30% are Muslims. Around 40% households are below the poverty line.

Figure 24: Map of the area of Manjarkui GP
(GoogleMaps 2011)

Farming is the main livelihood in the village, based on wheat, lentils and gram, as well as buffaloes, cows and goats. Around 20% of the household depend on daily labour. There are some shops and two Self Help Groups.

The GP is at a 90 minutes ride from Bhopal, the state capital, and 6 km away from Rehti, a small urban centre. A tar road to Rehti was built in 2006, after a collective struggle of the GP to get it from the government.

Electricity is available from 7 pm until 7 am, and sometimes at noon. Five public handpumps serve the community, although most households have they private bores. Problems related to water scarcity are rare. Toilet coverage is practically universal.

There are three government schools (primary, middle and high) and one anganwadi, all sharing the building in the photo. Primary healthcare is available in Rehti, but there is a medical shop in the GP.


Figure 25: Educational building, Manjarkui GP
The author

As a whole, the GP has a relatively good situation. There is good governance and a tradition of cooperation, irrespective of religion, caste or background. There are no big divides or inequalities among the villagers. Perhaps those in the most vulnerable situation are the families living in the

hamlet, as they are occupying government land. Also, the access to the main village gets very complicated during the rainy season.

But the picture, in what respects sanitation, was quite different just in late 2010. Over the previous 15 years, many household had built latrines, either on their own or in the frame of a campaign of UNICEF, and about 85% of the households were covered (survey). But regular usage only reached 75% according to the survey, or was much lower according to interviews to key informants (Kaka, interview). In addition hundreds of schoolchildren (many coming from neighbouring villages) were defecating openly, as facilities in the school were not working (Negrani Samiti, group interview).

As a result, open defecation was rampant in the boundaries of the village and the seasonal pond around which the village sits. This created serious health hazards, impeded standing on the roads pleasantly and also made schoolchildren spend their time fighting against flies (workshop).

But in December 2010, a CLTS triggering session was organised by the Budni block Master Trainers, after settling an adequate timing with the GP Sarpanch, secretary and anganwadi worker. Once a large group gathered (ensuring women were there, too), a transect walk was made and different tools such as the glass of water were used while in the open defecation areas. Medical expenses and dignity of women were also discussed. A very powerful ignition moment happened when people realised they were eating each other's shit (Negrani Samiti, group interview), and Natural Leaders emerged and made a monitoring committee in order to change the sanitary practices of the GP.

Starting the next morning, the committee started patrolling the open defecation areas, covering shit with ash and persuading people of the need to stop open defecation immediately, using the arguments of the consequences on health and dignity. They also identified the households of open defecators in a map, visited the households and suggested them to build dry latrines in order to stop open defecation immediately, and later upgrade it to low-cost ones. Patrolling continued every morning, gradually increasing the pressure towards those that persevered in their behaviour. They also innovated slogans to spread the message, such as 'be ashamed, stop open defecation', in Hindi '*sharam karo, sharam karo, khule me tatti, band karo*' (workshop).

The sixteen members of the committee included people from different religions, income levels, GP areas and castes, and had a male and a female section. The members of the committee had different motivations, which range from religious inspiration and passion or family tradition for social work to the recognition involved in being part of the committee. It must be mentioned that women played a very important part, both visible and invisible roles; they participated in the awareness raising activities but also assumed the household chores that men did not fulfil due to their activities in the campaign (Shashibai, interview).

The Master Trainers further tried to involve potential resistors in the committee. They succeeded in the case of Santosh Kaka, a very energetic elder which felt very proud of being from Manjarkui, which ended up becoming the committee leader (Malwi, interview 29 mar). The Sarpanch did not take active part, but was overall supportive. The fact that two of the Budni block Master Trainers were from Manjarkui themselves –though they did not take part in the triggering in the GP– allowed this fine-

tuning of the facilitating strategy. These two trainers also made the follow up of the committee, guiding it in the subsequent actions, when needed.

The inclusiveness and diversity of the committee made it easier to approach everybody, as the advices of peers were generally better accepted. As a result of the work of the committee, people quickly repaired their old latrines, built rudimentary dry latrines or started sharing with relatives. In a matter of days, open defecation had been stopped.

Patrolling by the monitoring committee ceased, although the security committee (permanent village committees that collaborate with the police) included sanitation as one of the issues to watch over during their rounds.

The monitoring committee, instead, started offering support for building more permanent latrines (Shashibai, interview). Firstly, a better-off member of the committee set up a sanitary shop and offered materials at low prizes, due to the bulk purchase and the discount of the royalties of sand and stones negotiated with the authorities (Shopkeeper, interview). Thence, sand, cement, bricks and pans were loaned at low prizes and rates to the interested households. Secondly, two committee members with experience as masons offered themselves to the households for doing the manual work, as a loan or for free in the case of the poorest households. Thus, the approximately 20 families with dry latrines soon were moving up the sanitation ladder (survey).

In the meantime, they had decided to create a second committee, the Broom Committee (Jhaaru Samiti), in order to address the problem of solid waste accumulation. This committed was in charge of sweeping the waste that was on the streets every week, and secondarily reinforcing the monitoring of the maintenance of the open defecation free status.

In addition, they also started a dialogue with the school in order to make the sanitation facilities operational again, although the intervention of the block CEO was needed to make the school board cooperate.

A further intervention of the CEO was required when an official advertisement in the newspaper informed about the latrine subsidies for all BPL households. Some villagers got confused and though the committee was willing to keep their money. The CEO had to call and reaffirm that a no-subsidy policy was being followed in Budni (Shopkeeper, interview).

Along these lines, at the end of January 2011, Manjarkui GP was officially declared ODF. The speedy success story appeared in several local newspapers. Two months later, when I did the field research there, the sanitary situation was very good. Many households had moved up the sanitation latrine, and 96% of the GP had access to improved sanitation. The rest were sharing with relatives or using dry latrines while they finished constructing their latrine. Thus, regular toilet use was reported in 99.5% (survey, ±6% confidence interval and 95% confidence level). No evidences of open defecation could be found in or around the village. Regarding hygiene practices, three quarters of the households used soap for hand washing (survey).

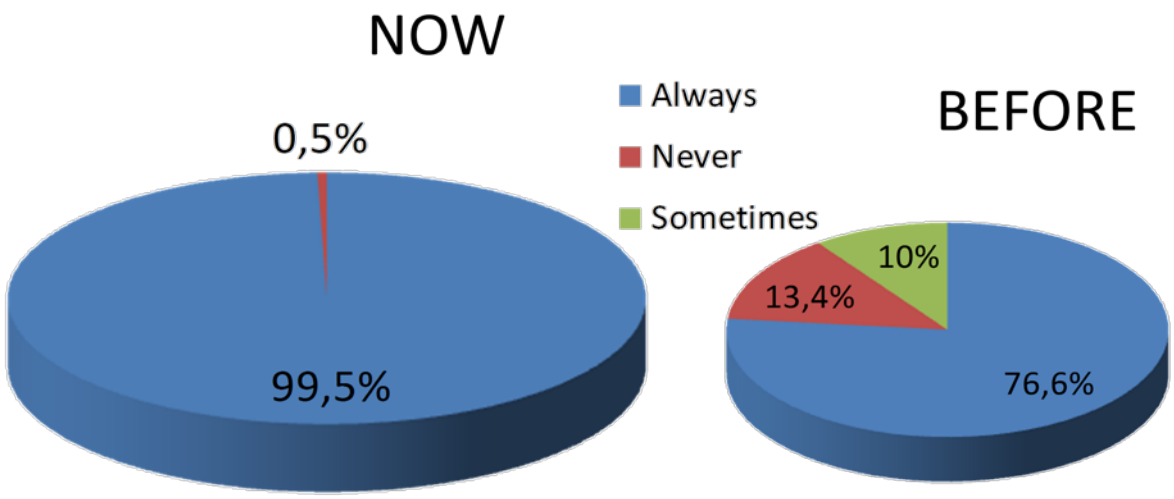

Figure 26: Toilet use in 2011 (left) and before the sanitation campaign (right) (survey)

One problem observed amongst those still with dry latrine, was that the use of a lid was not common. Also, in a couple of old latrines, septic tanks were installed, which had led to some pits filling up and posing challenges for emptying them. 85% of the latrines were seen to have good condition regarding cleanliness. Structural problems were rare, as many latrines were built or had been repaired during the campaign. 60% of the latrines had permanent door (almost all were latrines built before the campaign) and 30% had permanent roof (survey). The most common design was pour flush latrine with soak pit and cement platform. Old toilets used bricks for the structure, Orissa pans and rings for the pit. Toilets built in the campaign used cloths or wood for the structure, rural or Orissa pans and bricks for the pit (survey). This results from the promotion of low-cost latrines by the committee. One household did not follow the advice and, on the contrary, was building a very deep pit, technically inadequate and so expensive that construction went at a very slow pace.

Regarding inclusion, the pro-poor perspective of the activities of the committee had been quite effective and the households were having and using latrines irrespective of their income level. For instance, progress in the hamlet was as good as in the rest of the village. Poor households, including those in the hamlet, had been included in the campaign. However, two households living in the 'outskirts' of the GP did not have a latrine: a widow headed household and an old couple, the man being blind. Their exclusion was due to socio-political reasons. The widow felt that in her condition it was problematic to owe favours, so she had refused the help of the committee, and they were sharing with his brother. The old couple were the only ones still defecating. Reportedly, latrine had not been fully constructed due to political rivalry; their house was from a relative who was against some members of the NS, and did not allow the construction (Malwi, interview 29 mar). Despite the specific situation of these two households, their lack of latrine contrasts with the case of a household whose owners were during some weeks and the committee built a toilet in their plot without their knowledge. The plot was by the main road, as compared with the other two households, which were less accessible (also for verification teams).

Regarding non-household sanitation, the educational compound had improved the facilities, and there were now separate sanitation facilities for girls and boys, although still shared by the three schools and the anganwadi. Also the GP building had a latrine. The only problem was in an inter-village wheat market located 600 metres outside the village, where temporary labours were working, without any sanitary facilities.

A further problem concerned a rudimentary and partial drainage system, which conducted wastewaters through an open and non-cemented drain, at which end the surrounding handpumps were contaminated. Solid waste, on the contrary, was adequately managed.

As a whole, Manjarkui GP experienced a big change regarding sanitation practices, eliminating open defecation in weeks.

The perception of the benefits of sanitation was mediated by the short period of time elapsed since the achievement of ODF status. Thus, health and cleanliness, deriving from the total elimination of open defecation, were far behind convenience, the most cited benefit.

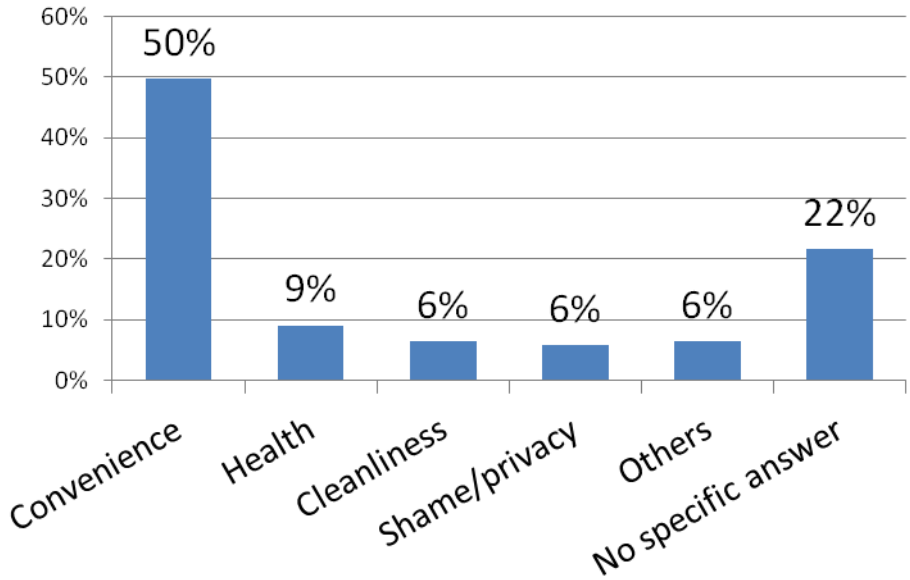

Figure 27: Percentage of times a benefit category was mentioned in the responses to an open ended question in the survey in Manjarkui GP
(survey)

From the interviews, however, the health impacts became evident. The anganwadi worker reported that there were a couple of cases of diarrhoea and fever every month, but that it had decreased since the campaign (anganwadi worker Manjarkui, interview). A woman, living close to the ancient defecation areas, also said that her four children fell ill frequently, but in the "last two months my children did not become ill" (Bai S, survey). In the workshop, women stressed especially the hygiene, shame and the decrease of flies and mosquitoes. Also, a very relevant note from a schoolgirl said: "I liked very much the campaign, now we don't feel shame to use the toilet of our school" (workshop).

A follow up visit four months later, confirmed the movements up the sanitation ladder and the maintenance of the ODF status (Malwi, interview 26 jul). The committee was about to evolve into a

more official Village Health and Sanitation Committee and to receive funds from the block to improve the management of solid and liquid waste.

In March 2012, the Manjarkui GP received the Nirmal Gram Puraskar award.

Sanitation sustainability in Manjarkui GP and Budni block

Can we consider that Manjarkui has achieved sustainable sanitation?

The sanitation campaign in Manjarkui was too recent as to state that it reached sustainable sanitation. But the impressively quick elimination of open defecation in Manjarkui –excusing the temporary labourers 600 metres away from the village– is an element pointing to it, as are the evidences of the **maintenance of ODF** status six months later. But apart from the physical results, what made me believe that the ODF status would maintain into the long term was the empowerment of the monitoring committee. The committee monitored OD areas and supported household for the construction. Once ODF was achieved, they created a second committee to address solid waste management. They also faced the school regarding sanitation, resulting in an increase of its accountability. The interactions with the block administration also brought about an improved relationship and collaboration. In May 2011, the monitoring committees of Manjarkui and two other GPs received a block level award that recognized the work of the three best performing monitoring committees in Budni block.

Regarding the **social justice** dimension of sustainability, the campaign was inclusive, sensitising and offering support to all the households, although temporary labourers were not taken into consideration. Despite the openness towards all the households, there were two cases of vulnerable families (a widow-headed household and an old couple) who did not access this support, due to their specific perspective or situation. More specifically focused support would have been needed to bridge the social and political divides preventing them from benefiting from that support.

What does the case of Manjarkui tell us about Budni block as a whole?

At the time of my research, the sanitation campaign in Budni was in its early stages; only around a third of the GPs had been triggered. Therefore, these ideas about Budni block are very preliminary and refer only to the western third of the block, where the campaign was working.

The context in Manjarkui GP was above the average in Budni block, regarding the characteristics described at the beginning of the previous subsection, such as socio-economic level, literacy, governance, unity of the GP and previous sanitary conditions. The mixture of religions was also higher than the average. The quality of the intervention was higher than in most GPs, because two master trainers lived in the GP, and this allowed a carefully planned intervention and continuous follow-up.

Manjarkui was among the best performing GPs in sanitation in Budni, as shows the fact that its committee was among the 3 awarded ones. Apart from these three GPs with impressive success stories and empowered committees, other GPs with less enabling contexts were also showing a very

good progress: 11 GPs out of around 20 initially triggered were positively verified in mid-2011 and received the NGP in 2012. The results were slower in other GPs, and in the most challenging GPs, the process had stagnated after little initial progress. This was the case of Bori GP. There, due to the triggering and the monitoring work, many households built temporary or permanent latrines. But after some months, OD was still rampant, just a few households were moving up the sanitation ladder and the monitoring committee had stopped working. As a whole, the results were very promising, especially if compared with the lack of results all over MP. An internal assessment from the block reported that by the end of 2011 almost 50% of the villages in the block were ODF. The progress in Budni compares to the previous rates of progress for Sehore, having 16.6% rural sanitation coverage in 2001 and 21.7% in 2011 (Government of India 2012).

Regarding **social justice** dimension, Manjarkui again represented the best performing end. Bori GP could also serve as the bottom end. The GP was formed by three villages which were very close physically, but very far regarding education and income levels. In the poorest village, where most of the families belonging to Scheduled Castes lived, the campaign had a very low intensity, and many households were excluded. Each village had a separate monitoring committee. The committees, except the one in the better off village, were very weak and they did not establish any mechanism to support or motivated the least able… and there were several really poor families, whose perspective had been clearly neglected. The same happened to most of the children, as no toilets were available in anganwadis, and only one of the three schools had not-too-bad facilities

In the rest of the GPs, the situation regarding social justice was somewhere in-between Manjarkui and Bori, with a lot of variance depending on the locality and the specific process.

Relevant dynamics

The initial stages of the intervention in Budni could not offer insights of long term dynamics, but permitted having a closer look at the contextual dynamics, as well as at those taking place at the time of the intervention.

On one hand, there were several **contextual** dynamics that facilitated the success of a CLTS campaign, as Manjarkui GP clearly exemplifies. Good governance, the feeling of unity as a GP and the tradition of joint action were very favourable for the acceptance of the collective and empowering discourse of the campaign. High education levels were also enabling for the focus on awareness. Relatively high previous sanitation coverage and sufficient income levels also reduced the problems associated to building many new latrines. But there were negative contextual dynamics in Manjarkui, too, such as the existence of a separate hamlet on encroached government land. The big coverage-usage gap was also problematic, pointing to the prevalence of a private perspective of sanitation, where it is up to the households to decide when and whether to use latrine; open defecation was not seen as a censurable practice. The previous social perception of sanitation was similar all over Budni block, although the share of those valuing the use of latrines –even if as a private practice– was generally much lower. Bori, one of the most complicated GPs in the block, was a clear case of such a perception, as well as of further contextual dynamics negatively affecting the campaign. These included alcohol and drugs

consumption, strong inequalities and having had a –failed– TSC conventional intervention recently. Further, divisions among political, caste or income lines were a deterrent of collective mobilisation and of taking into account the perspectives of the different groups. In the specific case of Bori GP, the Sarpanch, being supported mainly by his village fellows, had little authority over the other two villages and could not lead a GP-wide process (Narayan, interview 30 mar).

At the time of the **intervention**, there were several dynamics at play.

Environment-related dynamics were linked to the time of the year when the triggering takes place. When it took place during the farming season, people were busy and had not much money to invest in latrines until they could sell their crops. In some GPs, soft loans were made available to the households, but in others the problem delayed progress. The rainy season was also reported to be problematic for construction works and for the option of using dry-latrines as a first step towards improved sanitation. Following with this more technological aspect, dry latrines presented the problem that almost nobody was using a lid to close the dry latrine when it was not in use. Also, the bad smell emanating from the pits –partly due to their basic design– prevented many to use them with regularity. A further problem with technological and environmental dimensions was found in areas with very high water table areas, many seasonally water-logged, where no design alternatives were offered to the villagers (Narayan, interview 30 mar).

But, the most relevant dynamics during the intervention were in the social realm, involving leadership, inclusiveness and involvement of the administration.

The emergence of Natural Leaders from the GPs was a very important dynamic; clear differences in the outcomes of the intervention were observed between the GPs where Natural Leaders had emerged and where they had not. They were more effective than motivated Sarpanches, as they were trusted more. It was generally clear for the villagers that the Natural Leaders were committed with sanitation, instead of having vested interests. The absence of subsidies, implying the absence of funds to manage, was also good for dodging corruption-related issues.

Intertwined with this is a second relevant dynamic: the involvement (or not) of all the sections of the GP in the monitoring committee. The facilitators, who quickly perceived the importance of this, strategically tried to ensure that the committees created in the triggering sessions were as inclusive as possible. The (unintentional) fact that the facilitation teams were composed exclusively by Hindu men was a hurdle for achieving this. The prior knowledge of the GP was important for trying to involve all the groups in the triggering and in the committees. For instance in Manjarkui GP, which was well known by the facilitators, all were involved in the committee: rich and poor, Muslim and Hindu, men and women, low and high caste, those living in the village and those in the hamlet, Sarpanch supporters and opposition, powerful and less powerful… The inclusiveness helped bridge the diverse divides that could potentially derail collective focused initiatives. Almost every villager had an ‘equal’ or a respected member of his or her collective in the committee, making the dialogue easier. This also softened potential conflicts when dialogue gave way to –or was combined with– peer pressure through patrolling of OD areas and whistling to those willing to defecate in the open. Thus, it was possible to reach every villager, contributing to make the campaign inclusive. The contrary happened

in Bori GP, where powerful people representing certain groups were opposing the committees and impeded progress (Master Trainers, group interview), especially among the collectives they had ascendancy on and which were not present in the committee. Consequently, tensions aroused when committees tried to stop some villagers defecating in the open. This was also related to the fact that this peer pressure started at a too early stage of the campaign, before a critical mass of villagers was persuaded of the importance of changing sanitation practices.

The support from outside was a further determinant dynamic, especially in GPs where the committees did not have strong leaders. In the first place, the follow-up support by the facilitators was a very important aspect for the intervention being successful. The resources for this task were limited, and some GPs were not supported as much as their process really demanded, which had a bearing on the progress. Secondly, the direct support from higher level authorities (especially the block CEO) was determinant, too. On one hand, it was instrumentally important for solving the tensions and conflicts that aroused throughout the campaign, as the case of Manjarkui showed. In Bori, the opposite happened: the monitoring committee reported to not have had enough explicit support from above at the time when people started criticising them (Upadjaksh, interview). On the other hand, the involvement of the administration in the campaign boosted the motivation of those involved locally and conveyed the clear message that the sanitation campaign was a very important one. The improvements sanctioned for schools and anganwadis was a relevant and very visible part of this involvement.

Further, the discourse of the campaign was overall coherent, focusing on the collective and on behaviour change, and using a variety of tools and messages that included many different drivers for behaviour change (convenience, religion, health, pride, etc.), reaching the different groups. There was also a clear process perspective, stressing the fact that it was a long-term effort (Tiwari A, interview). This perspective was reflected at the local level, as show innovations such as the sweeping committee in Manjarkui, devised to manage solid waste and maintain the monitoring of the ODF status by the community into the long term.

There were also technological dynamics, without much relevance at the point of time of the intervention, but potentially important into the long term, when they interact with environmental dynamics. The campaign was initially not putting much emphasis in technical issues, coherently with the stand of the CLTS approach. However, this technological *laissez-faire* soon proved to have some risks. Many households built huge pits, which were unnecessarily expensive in the best cases, and constituted a health hazard in the worst cases –where the soak pits were so deep that water sources could be easily polluted. In order to solve these problems, in the triggering or follow-up sessions, low-cost leach pit latrines started to be promoted (Sunil, interview). However, this proved not be enough: many households continued constructing very deep pits, reportedly because they wanted long lasting latrines. This represents an important risk into the long term, as deeper layers of the soil have reduced filtrating capacities and the water collected through the handpumps might get polluted when water table rises.

As a whole, in GPs where several of the described positive dynamics concurred, progress was impressive and outcomes were excellent. But it is difficult to determine the extent to which these dynamics were present in the different GPs or in the area of the block triggered.

Also, the intervention was still evolving at the time of the research, trying to answer the problems that emerged throughout the process. For instance, the facilitators innovated and adapted the methodology and the triggering tools when they started losing effectiveness. To this respect, there were not enough nor sufficiently structured spaces for sharing the problems and finding or sharing solutions, so much of this learning was individual and disconnected, impeding synergies.

6.5. Discussion

In the previous sections I have analysed the sustainability in the case study areas, contributing to answer the second research question, related to sanitation sustainability.

I here briefly **synthesise** the extent to which sanitation sustainability was achieved in the three cases, comparing them and afterwards teasing out and discussing the most relevant dynamics, as per the theoretical framework used.

In Khandwa district (MP), the best blocks achieved some progress in coverage, but less in behaviour change. In addition, poor construction quality and low appropriation resulted in a significant reversion to open defecation after some years, reducing even further the outcomes of the intervention. In addition, the campaign did not adequately reach those who needed in most. As a whole the rural coverage in jumped from 10.1% in 2001 to 17.4% in 2011 (Government of India 2012), almost twice the state level jump. The story of Killod GP illustrates these problems, despite being among the most successful GPs in the district regarding sanitation. With the campaign, toilet coverage jumped from 19% to 85%. It fell back during the following years, reaching 56% in 2011. Open defecation had been reduced but was still a common practice. Besides, the least powerful households –oustees from a nearby reservoir, for instance– were excluded of the campaign. Schools also had bad sanitary conditions.

In Mandi district (HP), the sanitation campaign achieved significant success, with many GPs becoming practically ODF and sustaining the status. A radical change regarding the social perception of open defecation was observed and emerging challenges were generally responded to. The campaign was inclusive regarding the household level, but problems remained regarding public sanitation. As a whole, coverage rose from 28% in 2005 (Vaidya 2009) to 82% in 2011 (Government of India 2012), probably the biggest jump in India. Chhaprahan GP is one of the success stories in Mandi. Toilet coverage rose soon from 33% to 100%. Environmental challenges were responded to and households moved up the sanitation ladder, sustaining ODF status over the years. Schools and anganwadis were adequately covered, although problems remained regarding sanitation in the temples.

In Budni block (MP), the campaign was in its early stages and evolving, so it is not possible to assess its sustainability. Initial results were nevertheless very promising, especially taking into account the problems the sanitation campaign faces in MP generally. In approximately half of the GPs triggered, a clear change of sanitation practices was observable, in some cases showing clear signs of future sustainability. In other GPs, the progress was much slower or even stagnated. There were also in several GPs evidences of exclusion, where the least able were many times not sufficiently included in the campaign. The potential of the intervention in Budni was exemplified by Manjarkui GP, one of the top-performing GPs. With rampant open defecation by the time the campaign started, it achieved ODF status in a matter of weeks. Latrines were built or repaired in all households –with the exceptions of a widow and an old couple– and in the school, and solid waste started to be managed.

After synthesising the extent to which the interventions contributed to sustainable sanitation, I now move on to the second part of the research question: how did the intervention contribute to sustainable sanitation? **Comparing** the three cases is an interesting starting point, as significant dynamics come into sight.

Khandwa district shows very poor results as compared to the other two cases; even the best performing GPs in the area are far from open defecation free status. The principal reason of this divergence in the results is the intervention, which was supply-driven, subsidy-based and top-down, exactly the opposite of the interventions in Budni and Mandi. A further explaining factor is the context, which was very challenging in Khandwa (poverty, lack of unity at the GPs), especially if compared to Mandi.

Another interesting issue from comparing Khandwa and Mandi is the challenges that emerged after the initial phase of the campaign, when many latrines were constructed. The combination of natural events and technological choices led to the damage of a considerable share of latrines in both cases. But only in Mandi the challenge was adequately responded to, reflecting the fact that there had been a true change of behaviour. It must be said that some technical choices in Budni will potentially lead to future challenges, too.

Budni and Mandi had similar interventions. In both areas it could be said that the results regarding sanitation progress point to a change in the social perception of open defecation, though doubts remain whether Budni will be able to reach the level of success of Mandi. However, there was a disparity in the intensity of the problems regarding social justice. These issues were present even in the best performing GPs in Budni, while in Mandi their incidence was lower. The context differences are the main cause of this, especially regarding the intra-GP income disparities and social divides, which are much lower in Mandi. Even within Budni, it was observable that the inclusion in the campaign was less in GPs with greater inequalities and divides.

Having teased out some of the elements which explicate how the interventions contributed to sustainable sanitation, I now **systematise** and develop these dynamics.

From the three cases, it becomes clear that there are two crucial and interrelated social dynamics determining whether these **interventions** succeed in generating collective behaviour change: the

appropriation of the sanitation issue by the community and the change of the social perception of open defecation from a private to a collective perspective. When the aim of ODF status is clear and it is the community who wants to achieve it, the way to reach is relatively easy to find.

It is important first to describe the process of collective behaviour change taking place at the GP level. In the first place, the intervention challenges the perception that it is normal to have open defecation in the environment; using toilet is a private decision. If the message gets through, a group of villagers will apprehend the idea that sanitation is a collective matter and has to be eliminated. If this group is convinced and committed, they will get organised (in a sanitation committee) and try to persuade others to change their sanitary behaviour. If they have enough strength and resources, the process will unfold and they will finally be able to stop open defecation in their GP, making the perspective that nobody should defecate in the open prevalent. This does not imply that everybody shares their view; some will agree with it, others will change for private reasons, others dragged by the sanitation tide –as reported in Mandi– and the remaining due to the more or less direct pressure of their peers. With time, the new collective perception of sanitation can become normal, and open defecation will not anymore be regarded as an acceptable practice.

As said, the appropriation of the sanitation issue by the community (when the group gets organised) and the change of the social perception of sanitation to a collective perspective (when the new perspective becomes prevalent and is normalised) are the crucial dynamics in this process.

Regarding the first one, the **appropriation of the sanitation issue**, several related dynamics are relevant.

Firstly, a pre-condition for appropriation is that leadership from within the GP emerges and takes on the mission of changing the sanitary practices of the community. For achieving this, in the cases studied village level activities such as CLTS triggering or community theatre were used. Apart from bringing sanitation into public scrutiny, these activities try to generate emotions in the audience –disgust, sympathy, shame, anger…– as a means to mobilise at least some villagers to take the lead and change the situation. In order to support this, the administration has to convey the message of the importance of sanitation and establish mechanisms of recognition of local sanitation successes (award schemes, competitions, involvement of authorities in related public events and field visits, etc.), motivating village leaders and people from the grassroots to get involved.

Secondly, appropriation will be better when this leadership is multiple, meaning that committees formed by villagers participate in the campaign, but also that the say of the GP leaders (Sarpanch or Pradhan) in the process is not overwhelming. If the process depends too much on them, their potential lack of commitment or changes after elections can be very detrimental. But more importantly, in areas where governance quality is not good, vested interests of these leaders can result in corruption and a skewed distribution of support towards political allies, excluding the most vulnerable households. As happened in Khandwa, these troubles are exacerbated where latrine construction is subsidised. But even if the leaders were honest, suspicions and political rivalry from other factions can undermine the involvement and receptiveness of some villagers. The emergence of sanitation Natural Leaders and the involvement of anganwadi workers, leaders of community-based organisations –such as women

groups– and villagers working for a support organisation –as happened in Mandi– are vital dynamics that can counterbalance these problems. The involvement of these actors will be more frequent if adequately recognised, too.

Finally, coherent actions from the administration are also conducive to the involvement and appropriation locally. These include the already mentioned participation of high authorities in the campaign, as well as parallel improvements in education centres and other public buildings, which show that the administration wants to play its part in the process. Also, the provision of sensible support to the GPs in their process of change is critical in order to orientate the committees in their initial steps and mediate in potential tensions and conflicts in specific GPs. Rigorous monitoring is also central, being a pre-condition to a fair recognition of efforts.

Regarding the second crucial dynamic, the **change of the social perception of open defecation** from a private to a collective perspective, several subordinated dynamics are important to make this change of perception prevalent.

The first one is the creation of a strong sanitation committee, which is clearly connected with the appropriation cited earlier, especially to what concerns leadership. But also that enough committed people are involved, that they can mobilise the necessary resources and that they have some guidance from the facilitators or the administration if needed.

Secondly, the committee has to be able to convey the message of sanitation to the rest of their GP fellows. Related to this, the inclusiveness of the committee is a very important aspect, especially in GPs with strong divides. Peers –especially women– are generally more trusted, making it easier to establish a dialogue with an open mind, which can lead to a change of perspective and behaviour. Therefore, when all the sections of the GP –regarding gender, income, religion, political affiliation or caste– are part of the committees, these are more effective, as the experience in Manjarkui shows. Also, it is important to address a multiplicity of drivers. Not all will change their behaviour due to the collective dimension of sanitation. In fact, most will do it due to private drivers (e.g. convenience, status, follow what the others are doing, etc.), which are context-sensitive. It has been observed to be more effective when a variety of arguments is used in these interactions, including self-respect, women's privacy, children's health, village pride or convenience.

Thirdly, peer pressure is generally needed too, in order to make the collective perspective of sanitation prevalent. There is generally a part of the GP that will resist change due to various reasons, including political rivalry or stubborn preference for it. When persuasion is not enough, committees need to exert some kind of pressure in order to really achieve ODF status. The timing and intensity of the pressure has been observed to be key. It is most effective when it takes place after a couple of rounds of persuasion, when support has been offered to those facing problems and when it is only a small minority which refuses to change. A gradual increase of the severity of the pressure is also positive, for instance starting with the patrolling of open defecation areas and only later on moving to pressurise the specific households. Again, inclusiveness in the committee is good for avoiding unnecessary tensions. If pressure is too harsh, too early and to too many, it won't achieve much, and what is achieved won't sustain long, as the experience in Khandwa shows.

A fourth relevant dynamic is the creation of mechanisms of mutual help to support those unable to build a latrine. The support can take the form of materials or labour work and it can be for free, as a soft loan or as a revolving fund. These mechanisms are vital for making the sanitation campaign reach all, taking social justice forward. The support to the least able should not be taken for granted just because the committee is trying to achieve 100% coverage and use; there are multiple division lines in Indian villages and complex mechanisms of exclusion. Thus, even when there is mutual help some people might be left out, as the experience in Manjarkui GP shows. There is no single profile of those excluded, but being poor, living in hamlets or outskirts of the villages (many times both are connected), being a widow or having disabilities are some of the recurrent characteristics they presented in the villages visited. Further, in order to avoid the common risks of subsidising toilets, it is positive that the identification of those needing help relies on local perceptions instead of on the BPL classification, and that the resources come from village fellows instead of the government. Additionally, this support helps legitimising the committee applying measures to pressurise those reluctant to change their behaviour, as poverty is ruled out as an excuse.

Apart from the two crucial social dynamics, there are also some minor environmental dynamics playing a role at the time of the intervention.

One is the season when the campaign takes place. If in the farming season, people are generally busy and have fewer resources, which can sometimes hinder the investment of time and money in building latrines. The rainy season also has some troubles, linked with the difficulties for the construction works and for starting with a dry-latrine as a first step of the sanitation ladder. On the other hand, during the rainy season people are more aware of the inconvenience of defecating openly. The last one, which also has a technological dimension, is the existence of specific environments to which the standard latrine designs are not suited. These include areas seasonally water-logged, with rocks after a shallow layer of soil, with very high water table, etc. The technical support needed does not always reach those places, and the expensiveness of the solutions also poses a problem.

The cases studied also offer interesting insights about the dynamics taking place at a **later stage** after the intervention, enabling or threatening the sanitation sustainability.

In general, once the collective perspective becomes prevalent and ODF status is achieved, a virtuous circle starts: the enjoyment of a clean environment makes more and more people appreciate its advantages, reinforcing the change of social perception of open defecation. Many households that started with a basic latrine can then upgrade to a better latrine. A related socio-technical dynamic observed in Mandi was the movement up the sanitation ladder taking place when the households started earning money for they work in the frame of the MNREGA employment scheme.

But once the campaign is over and the committees stop their work, there is also a greater vulnerability to emerging challenges to sustainability. Most of these challenges result from the combination of environmental and technological dynamics, principally the exposure of the latrines to the elements coupled with non optimal technical choices at the time of construction. In hilly areas, as Mandi witnessed, latrines constructed in the verges of plots can be destroyed due to small landslides caused by rains. Rains and winds can also damage temporary superstructures, which do not offer privacy to

the user anymore. Latrine platforms with low construction quality exposed to rain can degrade and sink, making toilet use difficult. This happened in Khandwa district, for instance, and affected particularly the least powerful household, as due to political patronage their toilets had worse materials. A further challenge is posed by the low availability of water, especially during droughts or in remote areas such as hilltops. In some cases, the problem was seen to be aggravated by the lack of knowledge of dry sanitation alternatives or the absence of water-saving pans. Another challenge is the existence of oversized pits in some areas, built reportedly in order to have long lasting latrines. Apart from being expensive, it entails a risk of pollution of water sources. The unnecessary use of pipes for exhaust gases in soak pits is also problematic, as it opens a way for mosquitoes to the pits if not well maintained.

A more social dynamic posing a challenge to sustainability is the joint families that separate and the new households settling in the villages after the campaign. The second case has also a social justice dimension, as these immigrants are many times more vulnerable, like happened with the oustees in Khandwa.

Whether all these different challenges are responded to depends primarily on the success of the intervention; where the sanitation issue was appropriated by the community and the social perception of open defecation had effectively changed, solutions to these problems are found. In contrast, where the campaign was less successful, open defecation increased with these problems. Obviously, the availability of government schemes for disaster relief or for water harvesting (MNREGA) is also supportive. Apart from that, another vital dynamic for addressing these challenges is the long-term perspective of the administration, as it also helps maintain the enthusiasm locally. Mandi was a clear case of this, for instance with the successive sanitation awards that sustained interest of many GP leaders. In contrast, priority of sanitation decayed dramatically in Khandwa after the NGP awards.

Finally, the more **context**-related dynamics also have a bearing in the process. The most relevant refer to governance quality, pre-existing defecation practices, settlement patterns, life standards and social disparities.

Governance quality of the GP crucially determines the possibilities of success of a CLTS inspired intervention. As the ‘community’ is targeted, there must be such a community in the GP; there has to be some unity and feeling of belonging. This can be found where there are community-based organisations, where the GP has some tradition of joint action and mobilisation and where there is social harmony. In contrast, it will rarely exist in with widespread corruption, patronage and political conflicts. Related to this, the relationships between state and citizens also play a role. A history of positive collaboration increases the receptivity to a campaign partly based on self-help. In contrast, if people are used to paternalistic government interventions plagued by corruption, the sanitation intervention will be received with cynicism… even more where there has been a previous –failed– TSC conventional intervention, as happened in some GPs in Budni.

Regarding the pre-existing defecation practices, the share of households having latrines and using them is a relevant aspect, as the remaining gap represents the dimension of the mission ahead. However, big rates of open defecation can also become a driver for behaviour change, especially in

densely populated GPs. On the contrary, scattered settlement patterns lower the perceived nuisances of open defecation and also make it difficult to spread the message of sanitation to all the households. Partly connected to this, the presence in a GP of several villages or of separate hamlets –especially if on encroached government land– also hinders the GP-wide focus of the intervention.

Life standards are also a central contextual dynamic. High educational levels are enabling for the awareness focus of the campaign. In addition, where income levels are sufficient, households face fewer problems for constructing toilets. On the contrary, social problems such as widespread alcohol and drugs consumption are a serious challenge for a campaign seeking grassroots involvement. Apart from these 'static' indicators, the evolution also plays a role. Specifically, increasing living standards in general are a very enabling dynamic for the sanitation campaign. This was very clear in Mandi, where there was a kind of latent demand for sanitation, an area which had been left behind as compared to other well-being aspects.

Another vital issue is social disparity, which has a bearing on the extent to which the campaign can contribute to social justice. Strong disparities and divides among political or caste lines are a deterrent for mutual help and collective mobilisation, as identification as a community is very low. The least powerful tend to end being excluded. On the contrary, where income and social distance is low, aspirations are similar and behaviour changes can be quickly diffused.

LIST OF INTERVIEWEES

Anganwadi worker Surah	Anganwadi worker Surah, Chhaprahan GP, Gohar block, Mandi district, HP	Interview	16 June 2011
Anganwadi worker Manjarkui	Anganwadi worker Manjarkui GP, Budni block, Sehore district, MP	Group interview	26 March 2011
Bai, Sugna	Villager, household 49, Manjarkui GP, Budni block, Sehore district, MP	Survey	28 March 2011
Billod GP	GP secretary and others Billod GP, Baledi block, Khandwa district, MP	Group interview	24 February 2011
Chauhan, Roop Lal	TSC coordinator since 2007 and current Pradhan Chhaprahan GP, Gohar block, Mandi district, HP	Interview	13, 15 June 2011
Chhol ward	Chhol ward, Chhaprahan GP, Gohar block, Mandi district, HP	Group interview	19 June 2011
Dewra, Dinesh	Villager, Killod GP, Baledi block, Khandwa district, MP	Interview	3 March 2011
Gadbadi Mal GP	GP secretary assistant and others, Gadbadi Mal GP, Baledi block, Khandwa district, MP	Group interview	24 February 2011
Gambhir GP	Villagers Gambhir GP, Baledi block, Khandwa district, MP	Group interview	17 March 2011
Gupta	Pradhan Chhaprahan GP during the TSC, Gohar block, Mandi district, HP	Interview	18 June 2011
Headmaster	Headmaster Excellence School Killod GP, Baledi block, Khandwa district, MP	Interview	5 March 2011
Kaka, Santosh	Head of Monitoring Committee Manjarkui GP, Budni block, Sehore district, MP	Interview	25 March 2011
Kishoor	Villager, Killod GP, Baledi block, Khandwa district, MP	Interview	5 March 2011
Kishoori	Villager and oustee, Killod GP, Baledi block, Khandwa district, MP	Interview	11 March 2011

Kumtha GP	GP secretary and others, Kumtha GP, Pandhana block, Khandwa district, MP	Interview	22 February 2011
Lal, Nand	TSC Coordinator of Mandi Saksharta Evum Jan Vikas Samiti in Balh block, Mandi district, HP	Interview	1 June 2011
Malwi, Praveen	CLTS facilitator residing in Manjarkui GP, Budni block, Sehore district, MP	Interview	29 March and 26 July2011
Master Trainers	Facilitators, Budni block, Sehore district, MP	Group interview	26 July 2011
Meena, Jenaran	Villager, Killod GP, Baledi block, Khandwa district, MP	Interview	4 March 2011
Negrani Samiti	Monitoring Committee Manjarkui GP, Budni block, Sehore district, MP	Group interview	26 March 2011
Pal, Nag	Villager, household 51, Chhaprahan GP, Gohar block, Mandi district, HP	Survey	18 June 2011
Raj, Tilak	Villager, household 21, Chhaprahan GP, Gohar block, Mandi district, HP	Survey	16 June 2011
Ram, Raja	Mason during the TSC, Killod GP, Baledi block, Khandwa district, MP	Interview	13 March 2011
Ram, Raja and Ram, Moti	Villagers of the separate hamlet, Killod GP, Baledi block, Khandwa district, MP	Group interview	12 March 2011
Sachiv Borkheda Kurd	GP secretary, Borkheda Kurd GP, Pandhana block, Khandwa district, MP	Interview	22 February 2011
Sachivs	Meeting of GP secretaries in Budni block, Sehore district, MP	Group interview	4 February 2011
Sharma, Lalit	TSC Coordinator in Mandi district, HP, and member of Mandi Saksharta Evum Jan Vikas Samiti	Interview	23 June 2011
Shashibai	Head of female section of Monitoring Committee Manjarkui GP, Budni block, Sehore district, MP	Interview	29 March 2011
Shittal	TSC Coordinator in Khandwa district (MP)	Interview	22 February 2011
Shopkeeper	Sanitary shopkeeper, Manjarkui GP, Budni block, Sehore district, MP	Interview	28 March 2011
Singh, Nok	Pradhan Chhaprahan GP before the TSC, Gohar block, Mandi district, HP	Interview	18 June 2011
Soni, Prakash and Morya, Harish	CLTS facilitators in Khandwa district, MP	Group interview	23 February 2011
Sunil	Former Master Trainer, Feedback Ventures Foundation	Interview	9 February 2011
Tandi GP	Pradhan and GP secretary Tandi GP, Gohar block, Mandi district, HP	Group interview	6 June 2011
Teachers	Teachers at higher secondary school Killod GP, Baledi block, Khandwa district, MP	Group interview	7 March 2011
Thakur, Bandar	Pradhan GP Chamyar, Bahl block in Mandi district (MP) during the campaign	Interview	2 June 2011
Tiwari, Ajith	Block CEO in Baledi block, Khandwa district (MP) during the first year of the sanitation campaign and current Block CEO in Budni block, Sehore district (MP)	Interview	12 February, 20 February, 25 February, 4 April and 26 July 2011
Upadjaksh	Vice-head of Monitoring Committee Bori village, Bori GP, Budni block, Sehore district, MP	Interview	2 April 2011
Workshop	Participatory feedback workshop in Manjarkui GP, Budni block, Sehore district, MP	Workshop	29 March 2011

When relevant for the interviewee, period in post is indicated, 'current' meaning 'by the time of the interview'

7. Conclusions

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7.1. Outline of the chapter

In the past two chapters I have presented and discussed the evidences gathered regarding the policy process shaping the sanitation interventions and how these contribute to sustainable sanitation or not. Building on that, in this closing chapter I present the conclusions and recommendations, as well as some reflections about the research.

In the next section, I first briefly synthesise the sanitation story of the three cases in the frame of the national TSC and subsequently analyse the main findings of the research regarding the policy process and the process towards sustainable sanitation on the ground, discussing how they reinforce or question ideas from the literature. These findings build on the evidences discussed in the last sections of chapter 6 and chapter 7 and establish links with many of the aspects presented in the literature review in chapters 2 and chapter 3.

In the third section, I revisit the theoretical framework and the methodology, assessing their use in the research, their contribution and their applicability to other studies. I then present the research highlights, that is, the main contributions to knowledge made.

The last section deals with the recommendations arising from these conclusions, grouped in four clusters: for introducing CLTS at scale, for improving sanitation in the case study areas, for the Indian sanitation campaign as a whole and for future research.

7.2. Main findings

Synthesis of the storyline

In 1999, India launched the **Total Sanitation Campaign** (TSC), emphasising demand and community leadership, internationally recognised principles. The TSC official narrative, however, was generally not reflected on the ground, as implementation remained supply-led and based on subsidised construction. In Madhya Pradesh, for instance, interests of bureaucrats and politicians (political patronage, technocratic inertia, corruption…) favoured such a state of affairs. Actors such as WSP promoted CLTS as an alternative approach, with little success at the central level. However, several local champions emerged and collaborated with WSP for introducing CLTS in their areas.

Khandwa district, in Madhya Pradesh (MP), was one of these areas. The district and block CEOs introduced the approach in 2007. However, the need to accommodate competing interests –chiefly pressure from above to obtain NGP awards and vested interests from local leaders– resulted in a mixed approach, with CLTS tools (triggering sessions and sanitation committees) but contradictory principles (supply-led subsidised construction) and rushed implementation. There was some progress in latrine coverage at first –although poorest household were excluded– but many reverted to open defecation later on, due to low appropriation and poor construction quality. Moreover, the transfer of champions reduced the interest of the administration in sanitation, especially after the NGP awards.

In Himachal Pradesh (HP), there was a CLTS champion at a high position in the state administration, and a sanitation strategy coherent with CLTS was put forward. In 2006, **Mandi** district –having further champions at the district level– was the first and most successful district implementing it. A local NGO was hired as support organisation and institutional arrangements were made in order to align the interests of actors involved with the narrative put forward. This narrative was inspired in CLTS principles, but instead of CLTS triggering, local theatre and peers door to door visits were used in the sanitation campaign. It resulted in sharp increases of latrine coverage and use, and a clear change in the social perception of open defecation, which sustained over the years.

Back in MP, in 2010, UNICEF pioneered the block-focused strategy in **Budni** block, where the CEO –a CLTS champion previously posted in Khandwa– was eager to make the block ODF. Being in a smaller administrative level (block), it was possible to isolate the conflicting interests by training grassroots facilitators and thus implement a campaign coherent with CLTS. GPs were triggered and monitoring committees created in order to make their GPs ODF by persuading, supporting and pressurising those defecating openly. Still in its early stages, the campaign in Budni showed very promising results, with clear collective shifts of behaviour in many GPs. However, other GPs were progressing more slowly and the least able were not always sufficiently included in the campaign.

Findings about the policy process

Scaling up CLTS has been recognised as a difficult task –and this research confirms it–, principally due to the opposition faced, which has been related to vested interests in subsidies, pressure to disburse, technocracy and scepticism (Chambers 2009, Deak 2008). The fact that the case of India is especially complicated, due to the political hostility towards CLTS (Kumar, Shukla 2011), has been corroborated here, too. The decentralised character of the TSC has also played a role, indeed a twofold one. On one hand, it has exacerbated problems such as corruption, local capture of resources or lack of capacity, showcasing some of the limitations that the decentralisation literature points to (Blair 2000, Ribot, Agrawal et al. 2006, Galasso, Ravallion 2005, Steiner 2007). On the other hand, it has allowed for space to innovate and try the CLTS approach there where champions within the administration wanted to do so.

Apart from confirming the difficulties when introducing CLTS at some scale, the research has also looked into this process in more detail, allowing a more nuanced understanding of it. Instead of just thinking of opposition to CLTS due to scepticism or vested interests, a more **holistic view** including policy narratives, agents trying to change policies and interests (vested or legitimate ones) of actors involved is put forward. The interplay of these will allow or constrain the opportunities of CLTS to be introduced (policy space).

This policy process is indeed a complex one and takes place at multiple levels, from the GP to the GoI circles. In fact, the CLTS narrative entered the Indian policy debate at a time where there was already a tension between the TSC official policy narrative –not very different to the CLTS one– and the covert narrative, heir of the previous top-down supply-led approach. This **covert narrative**, suiting best the interests of many politicians and bureaucrats –political patronage, technocratic inertia, professional incentives, corruption or low priority of sanitation–, remained dominant and shaped the implementation of the campaign all over the country. Even the creation of the NGP awards, which boosted the profile of sanitation nationally, was not enough to change these dynamics and open up the policy space, partly due to a flawed monitoring system and lax verification.

This is the overall scenario CLTS has to face when introduced in a specific area in India. Understanding the policy process changes the perspective of what needs to be done and how long it might take. It is not (only) about 'convincing' the actors about the excellence of CLTS, but also about addressing these competing **interests**, either trying to re-align them (e.g. the professional incentives) or offsetting them (e.g. corruption). This requires the presence of champions from the administration in the centre of a network promoting the CLTS narrative. And this network has to gradually grow strong enough to tackle these interests.

Having a more complete picture of the policy process instead of the more static –and political economy ignorant– idea of the enabling environment (Robinson 2012) helps understanding this reliance on **champions** from the administration for introducing CLTS, and revisit the tensions they face (Kumar, Shukla 2011) relating them to the pressures from other actors for an implementation as usual of the sanitation campaign. These pressures are especially effective when they come from superiors,

making essential the counterbalancing role of the external agencies such as WSP or UNICEF. Nonetheless, many times there will be compromises, resulting in the use of **mixed approaches**. The deviance from the CLTS orthodoxy is pointed to as a problem in the literature (Kar, Milward 2011). And it generally is, especially if these compromises are just the result of the transfer of a key champion or of the accommodation of private interests of powerful actors. Nevertheless, there are cases where the mixed approach is an adaptation of the approach propitiated by the contraposition of narratives rooted in local perspectives and the CLTS narrative, and these mixed approaches cannot be considered negative a priori.

To what concerns the different **strategies for introducing CLTS**, on one hand the extensive training strategy seems suited to states where the policy process is more favourable to CLTS. It worked in Himachal Pradesh (HP), where there was a CLTS champion in a high position of the state administration and a state sanitation strategy following CLTS principles was adopted. But it failed in MP (and other states), mainly due to the strong interests converging behind the covert narrative and the lack of strong and stable CLTS champions. On the other hand, the block-focused strategy used later in MP, seems better suited for such cases. It must be highlighted again that the policy process is not static, so there are no blueprint strategies to apply to certain kind of states. Instead, the 'best' strategy will be to acknowledge the complexity of the evolving policy process, choose the course of action more adequate to it and seize the opportunities that might emerge.

In general, the research has highlighted the importance of taking into account the **policy processes** when analysing sanitation programmes, instead of having a technical perspective, which is the norm in the sanitation sector (WSP Sanitation Global Practice Team 2011, p.8). The inclusion of discursive elements in the analysis, which differentiates this study from previous ones (Krause 2007, WSP Sanitation Global Practice Team 2011), has contributed to highlight the existing diversity of perspectives and how the actors cluster around a legitimising policy story.

Findings about the process towards sustainable sanitation

Behind the promotion or introduction of **CLTS** lies the belief that it works better than other approaches (Mehta 2011). A comparison of areas where CLTS was introduced in India and where the standard TSC campaign –guided by the covert narrative– was implemented clearly confirms this idea for the Indian case. In fact, the best performing state in sanitation is HP, with a strategy inspired in CLTS. However, it has as well been corroborated that many of the once-considered success stories of CLTS in India are not up to the expectations (Bell 2011). This is related to the policy process issues described in the previous section, but also with what happens at the grassroots. Nevertheless, the idea that even in the areas where the introduction of CLTS was very deficient and performance was poor, the results are better than in neighbouring areas without CLTS (Knowdlege Links 2011) has been confirmed, too.

The experiences researched have allowed a closer look and a better characterisation of **the process of behaviour change** taking place at the grassroots, which in the literature is not sufficiently explored and sometimes presented as a 'taken for granted' after a successful triggering (Kar, Chambers 2008). This

in turn made possible to tease out how CLTS contributes to this change, which is of great value taking into account the existence of mixed approaches cited earlier.

The process of change starts with the CLTS triggering, where the perception that using toilet or defecating openly is a private matter is challenged. If the challenge succeeds, a group in the GP will form a sanitation committee and try to persuade others to change their sanitary behaviour. If they are powerful enough and the process goes well, they will make the perspective that 'nobody should defecate in the open' prevalent and stop open defecation. That their view becomes prevalent does not mean that it is unanimous; there will be several individual drivers of behaviour change, including pressure exerted by village fellows. With time, the new collective perspective of sanitation will become more and more entrenched.

This briefly synthesised process is however a long one and does not unfold automatically. Two key aspects are the appropriation of the community issue by a group of villagers and the collective perspective becoming prevalent.

To generate this **appropriation**, the triggering will be just a starting point. The underlying assumption in CLTS is that a good triggering session can ignite collective action and generate this appropriation almost on its own (Kar, Chambers 2008). It may happen in exceptional occasions, but not in general, especially when CLTS takes place at some scale; those facilitating can be well trained, but won't necessarily have a long experience. In addition, depending on who they are, they will have some limitations: If they work for the government, they will carry a backpack full of historically paternalistic –if not clientelistic– relationships and have time constraints. If people from the grassroots specifically trained for the campaign, they won't enjoy the 'outsider status', a factor which generates curiosity amongst villagers on arrival to the GP and motivates them to change the situation (Tsegaye, Wandera et al. 2009). Thus, reasonably good triggering sessions can be expected, but not perfect or magical ones. The role of the triggering will be thus principally to break the taboo and motivate some people. Real appropriation will happen when leadership from within the GP emerges, be it elected leaders, Natural Leaders, CBOs or –ideally– several of them. This reinforces the importance of the bottom-up principle; making sure the process is community-led. To encourage this, mechanisms to motivate, recognise and support these leaders adequately are key: follow-up visits by facilitators, public events, awards... Besides, there must be coherence from the administration, for instance not subsidising and arranging toilet construction (supply-led), making high authorities participate in sanitation activities to boost motivation, improving sanitation in official buildings…

The evidences from the research not only reshape the function of the triggering in the process, but also show that other tools such as community theatre can perform a similar role in specific contexts. Both tools have an emotional dimension, reinforcing the idea that behaviour change is easier to achieve with something else apart from information and rational arguments (Panter-Brick, Clarke et al. 2006).

Once the sanitation issue is appropriated, the second key aspect comes into play: that the **collective perspective of sanitation** becomes prevalent, i.e. that it is widely accepted and everybody uses latrines. The elimination of open defecation is not enough, as it might be the result of intense pressure

without a generalised change of mind. Those motivated set up a committee and go house to house trying to persuade their village fellows to build a latrine (even if a low cost one) and stop defecating in the open as soon as possible. Drivers for changing behaviour being multiple, the message can be tailored to the specific household when a dialogue is established. The idea that a committee from within the community does this persuasion task relies on the fact that between peers, there will be more trust and a fruitful and honest conversation can be established more easily. However, in many GPs in India, it won't be clear who is considered a peer, as there is generally no clear sense of community. In fact, when villagers use the word community, they refer to a specific subgroup, e.g. the Muslim community of a GP. This 'language gap' points to the somehow idealised notion of community in CLTS (Mehta 2011), which does not correspond to the reality, at least in India. Instead, multiple groups and factions will cohabit in the same area; caste, religion, income and political affiliation are the strongest lines separating these groups. As a consequence, in order to bridge these divisions and ensure real peers' interaction, the involvement of people from all the groups in the committees is crucial. This was found to be easier to promote when knowledge of the GP context was high prior to the triggering.

This revision of the concept of community also has implications for the idea that those better off will help the least able to build latrines (Kar, Pasteur 2005). To be receptive to the obstacles people face and try to support them is important, for social justice reasons as well as for legitimating the work of the committee. It is positive that it remains an insiders' issue –regarding the origin of resources and the identification of those needing it– so that the campaign does not become top-down and supply driven, and disputes about who is supported start bursting out. Anyway, due to the divides mentioned above, there will be many times specific sections that might be excluded. There is thus a tension between ensuring social justice and having a bottom-up process that the CLTS approach still needs to solve.

Apart from persuasion, peer pressure is generally needed in order to achieve universal use, as there are always some people resisting to change. Again, an inclusive committee helps avoiding tensions, as this pressure will be exerted by those really considered as peers. Pressure can either contribute to make the collective perspective of sanitation prevalent or just reduce the practice of open defecation for some time. If the first is to be achieved, it must be a gradual process, taking place after several rounds of persuasion and mutual help and only when those defying the decision to stop open defecation are minority. It is important for the CLTS approach to abound on this reflection and avoid that peer-pressure (patrolling OD areas, whistling, patrolling) is presented as the principal post-triggering activity of the committees.

As a whole, the process of making the collective perspective prevalent is not an easy one, and there are many stages where obstacles may arise. Along with the issues related to the pre-triggering and the creation of the committee already mentioned, this also reveals the importance of the follow-up stage, in order to adequately accompany the committee. The real significance of this stage is insufficiently acknowledged both in the CLTS Handbook (Kar, Chambers 2008) and in the CLTS trainings, where the specific weight of post-triggering is generally minimal as compared to the one of triggering. This is partly due to the belief –grounded on real cases, as Manjarkui GP demonstrates– that a good

triggering will empower the community to an extent to which the rest becomes easy. However, more attention and intensity (which do not imply more intrusiveness) in the follow-up is important.

Once the collective perspective becomes prevalent, a virtuous reinforcing circle starts due to the enjoyment of the benefits of an ODF environment. Hence, this perspective gradually becomes part of the culture, and emerging challenges will be responded to relatively easily. If ODF status is not achieved or the collective perspective does not become prevalent, reversion to OD by many households has to be expected.

This introduces a nuance to the idea that in many cases ODF is achieved but does not maintain long (Mehta, Movik 2011). It might be the case in some occasions where very intense pressure was exerted and, during a short period of time, all people in a community covered their excreta with soil or used dry latrines. Then, once the intensity of campaign lowered or dry latrines filled up, they reverted to their old habits. However, the evidences of this research reveal that what happens more frequently is that ODF status is not achieved in the first place, as a considerable amount of households never stops defecating openly –maybe just defecates farther away. When intensity of the campaign decreases, the distance and visibility of OD augments.

In the long term further **challenges** arise, and similarly, the response to them depends on whether the social perception of open defecation became prevalent and entrenched or not. If it did not, the result will be more household reverting to open defecation. But if it became prevalent, arrangements will be made in order to avoid reversion –or make it as short as possible. Obviously, sustained priority of sanitation in the political agenda will be positive in either case.

Apart from the more immediate problem of dry latrines filling up, the challenges identified are related with environmental dynamics, many times in combination with questionable technical choices. Winds can damage weak superstructures, while rains can damage the platforms if construction quality is bad or even destroy the latrine if its location was not appropriate. Water scarcity was a further problem in specific areas, aggravated by the absence of water-saving pans or improved dry latrine alternatives. Apart from that, latrine pits were in many cases oversized. This is unnecessarily expensive and can even constitute a health hazard. All these challenges reinforce the doubts (Papafilippou, Templeton et al. 2011) regarding the principle of not giving technical advice to communities in advance and limiting it to showing low-cost latrine designs from other villages, as technical problems “can usually be tackled as they arise” (Kar, Chambers 2008, p.83). This applies only to low-cost latrines, but many households have been observed to start directly with more expensive designs, where there is less room for creativity and where it is difficult to tackle technical problems afterwards.

Comparing these challenges with those presented in chapter 3 emerging from the literature, it can be observed that many are coincident. However, problems regarding affordable hardware have not been witnessed in the research. Finally, the social dynamics coming from outside (temporary labours, passers-by or major social events) have been observed too, although not so much as a challenge after some time, but as an area that remains a blind spot in the sanitation efforts of most GPs. That is, an entrenched collective perception of sanitation affects every household in the GP, but does not

necessarily include open defecation by outsiders or in public events, as long as these OD episodes are infrequent or far enough from the habitations.

Regarding **context** issues, the unity and governance quality of the GP have been observed to be the most determinant aspect. Where there are few political tensions and people feel part of the GP, it is easier to generate behaviour change. The negative effects of social divides on it have been already explained. But additionally, the distance between groups (especially regarding income) translates into a gap between their aspirations, hindering the imitation effect which helps diffuse the new behaviour quickly. Finally, it has been observed that where living standards are increasing but sanitation is left behind –due to the taboo surrounding it– a kind of latent demand for sanitation is generated, such as the one mentioned in relation to the privacy of women in a sustainability study in Bangladesh (Hanchett, Krieger et al. 2011, p.43).

Zooming out of the GP level towards **planning** aspects, it has been found that facilitators require adequate support. Their role is complex, and they face many emerging difficulties, and therefore their process of learning is very important, too. To enable this, there has to be an adequate learning environment, including sensible accountability. In this respect, an excessive focus on 100% ODF has proved to be problematic, as others have already mentioned (Howes, Huda et al. 2011). The idea of ODF is important to set the aim, but the extreme difficulty of achieving it on the ground must be acknowledged and shared with the facilitators and the committees, in order not to set too high expectations, which can generate frustration and lead to over-reporting of achievements, even more when there is competition for awards. A similar effect takes place with rigid targets of ODF villages in specific deadlines.

Another finding related to planning is that the recommended practice of starting where there are favourable conditions (Chambers 2009), p.23 entails some risks. The idea behind it is sound: make it easy when facilitators are inexperienced and uncertainty is high. However, at a later stage of the campaign, the initial novelty, motivation and momentum has generally decayed and champions might have moved to another post. These negative effects can prevail over the benefit of the experience gained. When challenging conditions include remoteness, poverty or social problems, the risks of this recommended strategy involve a social justice dimension, too.

Finally, regarding the comparison of CLTS with other approaches in general, it would be venturous to draw any conclusion apart from the one in the beginning of this section referred to India. However, the evidences do reaffirm the idea that the strong focus of the collective is the most relevant contribution of CLTS to the sanitation sector.

7.3. Revisiting the research

The theoretical framework

The use of the Pathways Approach as inspiration for the theoretical framework has provided perspectives on sanitation sustainability and the related policy processes which have proved to be worthwhile for analysing the experiences at hand. The adaptation of the approach due to the intended retrospective use for this research has been relevant in shaping these understandings by helping to include a historical perspective, putting the emphasis on dynamics and challenges, and leading to laying out more explicitly what social justice implies in sanitation interventions.

For one thing, the conceptualisation of the **policy processes** has allowed a detailed analysis of the introduction of CLTS in the different experiences, looking at policy narratives, agents and interests. Analysing policy is already innovative for the sanitation sector. But compared to other approaches to policy analysis, which tend to focus on political economy issues (Harris, Kooy et al. 2011), the Pathways Approach has allowed highlighting how the actors coalesce around legitimating discourses that protect their interests, but also the agency of people and the networks that are formed in order to change the policy pathway. The modifications I introduced in the framework –though not too significant– have been useful, drawing attention to agency and contextual factors. An improvement that could be made to the framework is to introduce categories of interests of the actors in order to bring into view those who support a narrative by conviction (public/altruistic interest), as well as to differentiate between legitimate private interests (e.g. professional incentives) and illegitimate private interests (e.g. political patronage).

For another thing, the perspective on **sanitation sustainability** inspired in the Pathways Approach has enabled examining the processes taking place on the ground from a broad angle. First, the non-static view of sustainability has helped looking at the process instead of having still pictures. Secondly, the three spheres proposed –social, technical and environmental dynamics– have enabled covering all the main aspects influencing the changes in sanitation, from the context to the intervention and the challenges emerging afterwards. However, the most relevant dynamics identified always fell in the social sphere. This is somehow logical, rural sanitation being more about behaviour than about infrastructure, and presenting less interaction with environment. Nevertheless, it puts into question whether the three spheres are the most useful ones. Instead, for instance, the subset of institutional dynamics (within the social sphere), which proved to be very relevant in the process of behaviour change, might merit a separate sphere. Finally, the normative dimension of sustainability has contributed to put the focus on social justice issues, that is, it has enabled looking beyond the aggregate results and explore whether the least able were included in the process and how they experienced and were affected by the campaign. Equity and process issues are thus embedded in the view of sanitation sustainability, averting narrow outcome based views centred in ODF status.

But the main virtue of the Pathways Approach –as it has been used here– is to act as an **umbrella** for both perspectives, bringing together a lens for looking at sustainability locally and one for analysing

the related policy processes. This has allowed bridging the gap existing between technically oriented expertise and more politically sensitive perspectives, which generally run separately. On one hand, in the sanitation sector the technical perspective is dominant; the research focus may be just technological or involve behavioural issues too, but it tends to remain ignorant of wider political aspects. On the other hand, policy analysis is sometimes limited to the broader level or to discursive issues, forgetting about materiality and ground realities. I deem the innovative combination of both realms in this thesis key for fully understanding what happened in the interventions studied. If I had just looked at the sanitation experiences, I would have overlooked the relevant aspects that explain what goes on at the ground level. Conversely, a study limited to the policy process would have resulted in a critique disconnected of ground realities and thus failing to be constructive and propositional.

The development of a PA-inspired framework for understanding sanitation interventions is a mission that had only been timidly undertaken before (Mehta, Marshall et al. 2007), even more in the case of CLTS (Movik 2011). In this sense, this work represents a relevant step forward. The framework set up can be applied to sanitation interventions elsewhere, although adaptations would be required, both as a consequence of its originality and of the need to tailor it to each specific context and intervention.

The adaptations linked to the retrospective use of the PA might also contribute to the Pathways Approach in general. Firstly, the same perspective might be applied when studying interventions in sectors different from sanitation. Secondly, the advantages of the retrospective use of the approach make the case for questioning whether the primarily prospective use of the approach can entail a risk of not taking the historical perspective sufficiently into account.

The methodology

The methodology used has been useful for responding to the research questions. Limitations, such as the weak focus on the policy issues, have already been described in the fourth chapter, so what follows is rather a compendium of reflections about how the different tools worked out.

The overall **strategy** of making several visits to GPs in the case study areas and then going for an in-depth research in the best performing GP has proved to be adequate, taking into account the time frames and available resources. In the short visits, one can get a general idea of the campaign and the sanitary situation. But being accompanied by the village leaders and without time for establishing rapport adequately, the picture presented is normally far better than the real one, downplaying conflicts and shortcomings. The in-depth study enables bridging this gap and helps thus rescaling the impressions from the quick visits.

Moving now to the tools used during the in-depth study, the **walks** were a very useful starter. It allowed getting a general picture of the GP, the different areas and socio-economic profiles. In addition, people got to know that we were there researching sanitation and some approached out of curiosity or because they wanted to share something about the campaign, in what could be called an auto-selected sample of key informants, offsetting the bias of interviewing only those pointed to by village leaders or the administration.

The slow **survey** was very worthwhile, too. Random household sampling –despite the difficulties of getting adequate sampling frames– allowed reducing biases and in some cases helped discovered 'hidden' hamlets of household clusters that had gone unperceived before. Many times, these were especially vulnerable areas. The slowness of the survey is related to the fact that when the surveyed household was found to be of interest, it was followed by a more or less formal interview. The survey finally allowed quantifying the coverage at the village level in a rigorous way, which helped support the more qualitative insights from the research with figures. This became nevertheless a double edged sword when the research was presented to certain audiences; attention was diverted from general findings towards the hard figures, which became the main focus.

The days devoted to **immersions** were the ones I enjoyed most. They were also instrumentally very positive, allowing an approximation to the points of view of the families through their daily routine, as well as more relaxed conversation that served to identify relevant issues and key informants not noticed before. Besides, it served for building rapport and changing the perspective people had about me, as they saw me doing manual work with the families –cooking, harvesting, shepherding, helping a blacksmith or taking part in the works for installing a tubewell or for building a MNREGA bridge over a rivulet– despite being a *gora* (European).

Finally, regarding **interviews**, an interesting fact was that those taking place in less formal settings were more interesting. In fact it was many times during informal conversations were more things could be learnt. To this respect, what I have labelled 'car-interviews' for were very valuable for talking with those holding important responsibilities over the sanitation campaign. The idea is to use the time spent in the car during field visits for interviewing them. Apart from the informality, they have a lot of time for the discussion, which they would probably have to devote to other things if sitting in the office.

As an overall conclusion, the **methodology** and research tools were very useful for exploring the issues at hand, especially due to three aspects. First, it was flexible enough –without giving up rigour– to respond and adapt to what emerged from the field research, which generally was very different from initial expectations. Second, it allowed the time necessary to go sufficiently in-depth and unveil what was really happening on the ground. Finally, it zoomed in and out, complementing the locally in-depth perspective with more extensive (and less detailed) insights, thus giving elements for generalising the findings from the in-depth case studies.

I believe that the methodology could be utilised for analysing sanitation interventions elsewhere. However, it must be born in mind that adaptations would be needed in order to suit the specific contexts and interventions and, especially, to adjust to the available resources. The methodology –relatively low-cost, but time intensive– is adequate for masters or doctoral research, but might need considerable adaptations for other types of studies. In any event, I believe that more than the specific methodological tools, what is really worth adopting is the three aspects just highlighted.

Highlights of the research

The main contributions to knowledge are the following:

- India's Total Sanitation Campaign follows a top-down and supply-driven narrative contrary to its official guidelines. The main reason is the interests of the actors involved, including political patronage, technocratic inertia and misdirected accountability.

- The introduction of CLTS at some scale entails a complex policy process, involving agents, narratives and interests. This process determines the extent to which the final intervention is coherent with the CLTS core principles

- Nevertheless, many times this coherence is not achieved, as the interests in status quo are strong and CLTS champions are constrained by them and are also subject to post transfers. Results are then poor and unsustainable, although comparatively better than in the average TSC.

- But when there is strong political leadership and coherence is achieved, results are impressive. Himachal Pradesh is a clear example –although CLTS triggering tools were not widely used–, with the highest decadal coverage jump in the country. The experience in Budni block, Madhya Pradesh, shows that it can be done in more challenging contexts, too.

- Regarding the introduction of CLTS, WSP's extensive training strategy seems to be better suited to districts or states with strong and stable political leadership (e.g. HP). Where conditions are less favourable (e.g. MP), the recent block-focused strategy may be more adequate. Overall, there is a need to acknowledge the diversity and relevance of the policy setting and adapt the strategy to it.

- Locally, successful sanitation interventions take place when GPs appropriate the sanitation issue and work in committees in order to free their environment from open defecation and make the collective perspective of sanitation prevalent.

- CLTS triggering can mobilise a group of people to form a sanitation committee in a GP, but this is just a first step; most of the challenge will lie ahead. Other emotional tools such as community theatre have proved to be effective for mobilising people, too.

- Unpacking the 'C' of CLTS is important. The feeling of community rarely involves a whole GP, due to the existing diversity and social divides. Therefore, inclusiveness of all sections in the triggering and committees is crucial to reach everybody. In addition, mutual help cannot be taking for granted, neither.

- The technological laissez-faire in CLTS has proved to lead to inefficient designs (e.g. too big pits) which can affect sustainability and sometimes generate health hazards.

- However, when the process has been successful and the collective perspective of sanitation becomes entrenched, most emerging challenges are responded to adequately.

- The Pathways Approach –used retrospectively and adapted to sanitation– constitutes a valuable framework for analysing sanitation interventions. It provides a comprehensive perspective, encompassing policy processes and locally relevant dynamics and challenges to sustainability. The concept of sustainability incorporates a social justice dimension, which is key to addressing equity issues within the 'community'.

7.4. Recommendations

For introducing CLTS at scale

A first set of recommendations is oriented to the strategy for **introducing CLTS at some scale**. These could be of special interests of international organisations like WSP or UNICEF, as well as of high level CLTS champions. They apply particularly for the Indian context, but can be inspirational for other countries, too.

- Analyse the policy setting –potential agents, interests of relevant actors, dominant policy narrative– and choose the scale and plan the strategy for introducing CLTS accordingly.
- Increase activities such as exposure visits in order to favour the emergence of champions. Multiple champions and networks are positive for strengthening the CLTS narrative, as well as diminishing the effects of future post transfers.
- Only start introducing the campaign when/where there is at least a powerful champion at the targeted administration level. At whatever scale the introduction of CLTS is envisaged, trainings and triggering will have little impact unless authorities commit themselves to the campaign.
- Try to protect the champions from pressures from their superiors for implementing the campaign as usual. The power and legitimacy of an international agency can be instrumental for counterbalancing these pressures.
- Be open to adapt the strategy to the evolution of the policy process. Review and learning mechanisms are needed to understand this evolution.
- Engage with differing perspectives from local actors; they may help adapt the intervention to the local culture, the administrative setting, etc.

A second set of recommendations focuses on **how to do CLTS at scale**, and affect the different stages of the process, including planning, training, implementation, etc. These can be of the interest of champions at the administration, consultancies, trainers, NGOs, international organisations… Although arising from the experience in Himachal Pradesh and Madhya Pradesh, most apply for India as a whole and potentially elsewhere. Some have wider implications, affecting the CLTS approach and methodology.

- Be prepared to reach compromises in the final approach used. But try not to make concessions affecting the core principles of CLTS, without which interventions have proven to be ineffective: bottom-up implementation (there must be appropriation at the GP level), demand-driven campaign (no subsidised latrine construction arranged from outside the GP) and focus on collective behaviour change (target use of latrines by all).

- Select and train the facilitators carefully. In most areas of India, people working at the administration won't be successful facilitators, as they have strong time constraints and many times there is mistrust towards them at the grassroots. Where good NGOs are available, these may take on the task. Selected people from the grassroots working as facilitators would be a further alternative. In any case, adequate training and follow-up of the facilitators are crucial.

- Gather information about the social composition of the GP during the pre-triggering. This knowledge is valuable for ensuring inclusiveness of the different sections of the GPs in the triggering sessions and in the committees, which in turn has proved to be essential for reaching everybody.

- Don't rely too much on GP leaders for leading the process at the GP level. Especially where governance is bad or political rivalry is strong (another aspect to investigate it in the pre-triggering), leadership of Natural Leaders or CBOs should be especially encouraged.

- Pay attention to GPs that are composed by several villages or that have separate hamlets. Based on the insights from the pre-triggering and available information, decide whether a unique triggering session or separate sessions are needed, as well as the desirable number of committees. The physical distance between the clusters (and the open defecation areas) and the sense of unity in the GP are two elements to be taken into account.

- Devote enough resources for post-triggering activities –such as those pointed in the next two points– and focus on them in the trainings, too. These resources should allow some flexibility so that GPs where progress is slow can be sufficiently supported. It is important to assume that facilitating collective behaviour change is a complex mission; the triggering is just the starting point.

- Don't take for granted that the least able will be sufficiently supported, mechanisms of exclusion can be very complex. In the post-triggering, facilitators should encourage the committees to identify and find the way to help them. Specific tools or methods for doing this might be useful.

- Address latrine design issues with the committees and households. Technical support should take place in the early post-triggering phase and be in the form of sharing of different alternatives (don't prescribe technical fixes). Facilitators have be sufficiently trained in technological issues, including designs adapted to complicated environments, as well as both low-cost and high-cost options, so that they can advise those wanting to spend more.

- Devise coherent accountability systems for facilitators and others involved in the campaign, namely that embrace the complexity and challenges of the mission. Thence a much needed learning environment can be created. It includes acknowledging that reaching absolute ODF in a short time span is almost impossible. This will help avoid exaggerated expectations and inflated claims of success.

- Be rigorous in monitoring progress. Incentives such as awards or competitions, while boosting motivation, can also become a source of over-reporting. Thus, independent monitoring (groups external to the GP and even to the block) is needed to counterbalance this. A good moment is when ODF status is claimed.

- If the campaign starts triggering in GPs with favourable conditions, be sure to move short after that to the most challenging ones. Don't leave them for the last phase, when the campaign will have lost momentum.

For the cases studied

The previous recommendations stem mostly from the cases studied. But there are further more specific recommendations for the administrations of each of the cases studied. Starting in **Khandwa** district, Madhya Pradesh:

- Reassess the situation of sanitation in the district, as official coverage data are far from reality.

- Take immediate action to tackle the alarming sanitary deficit in schools and some anganwadis.

- Start a new sanitation campaign which focuses on awareness and behaviour change, and ensures real appropriation of the community (avoiding cooption by GP Sarpanches).

- Take some measures to improve the governance quality in the area, tackling corruption and improving the accountability mechanisms at all levels. If not, few initiatives –including a new sanitation campaign– will reach the ground.

For **Mandi** district, Himachal Pradesh:

- Acknowledge the existing gaps, while valuing the incredible success achieved. Try to imbue a renewed sense of mission to the functionaries with responsibilities over the campaign. Make sure that the message of the importance of sanitation is conveyed to the new Pradhans (elected in 2011).

- Address the household coverage gap. For doing so, potential actions could be: improving water supply, having more agile funds for disaster recovering, offering technology options adapted to difficult environments and devising mechanisms so that at the GP level, those resisting to change their sanitary behaviour are motivated or even pressurised. Furthermore, ensure that exhaust gas pipes are eliminated from soaking toilets.

- Address the public sanitation gap. Research successful experiences to learn from them. A campaign focusing on the public dimension of sanitation could be a start. Part of the solution would be legal provisions ensuring sanitation in marketplaces and where gatherings take place, including a clarification on who is responsible for maintenance.

- Ensure adequate management of school toilets, clarifying who is responsible for its maintenance and cleaning and ensuring toilets are not locked during school time. Besides, address the problems in anganwadis situated in private buildings.

Back in Madhya Pradesh, for **Budni** block:

- Adapt the methodology to each GP. Flexibility for follow up is especially needed, in order to tailor it to the rhythm and capacity of the monitoring committee of each GP.

- Address the technological problems observed, such as the lack of use of lid in temporary dry latrines, the unreasonably deep pits or the lack of options in high water table areas. Incorporate these issues in the early follow-up with committees after triggerings.

- Create learning spaces for master trainers (facilitators) to share the emerging obstacles and the innovations found to tackle them. This includes not over-focusing on reaching ODF status quickly. Improvement of working conditions and better means of transportation would probably be positive for the campaign, too. In addition, ensure adequate and rigorous monitoring in order to prevent over-reporting.

- Systematise the experience thoroughly, in order to facilitate potential scaling up to other areas in the district or elsewhere in the state.

For the Indian sanitation campaign

These recommendations could be especially useful for state governments and for the GoI, principally for the DDWS.

A first set of recommendations refer to how to make the sanitation **campaign more coherent** to its principles, as per the official guidelines. These ideas emanate principally from the insights from Madhya Pradesh, but apply to the many states with a situation similar to that of MP. The recent re-branding of the TSC into Nirmal Bharat Abhiyan does not lessen the validity of these recommendations, as the changes introduced hardly affect the main hurdles to coherent implementation.

- Ensure household latrine incentives are not disbursed as upfront subsidies. Subsidies tend to become the centre of the campaign, shifting the focus from creating demand to constructing latrines, enabling corruption and generating resistance amongst the households that do not get cash. Thus, it is vital to insist on this point of the guidelines and devise mechanisms that make sure it is followed. Beware also of the perverse dynamics of ever-increasing incentives

for household latrines: households changing behaviour quickly are penalised with lower amounts. Similarly, the NBA wiping the slate clean regarding toilet coverage data benefits those who spent the funds inadequately.

- Redesign accountability mechanisms between the centre and the states, and the states and the districts. If success is measured according to the share of budget disbursed, a top-down implementation based in subsidised construction is favoured. Setting inflexible and unrealistic targets of ODF GPs –or even worse, NGP awarded GPs– has a similar effect. Instead the emphasis should put on the actual outcomes in terms of latrines use, and a more flexibility would be desirable for addressing the emerging difficulties and reducing over-reporting.

- Improve the monitoring and verification systems, which will contribute to the previous point. On one hand, its truthfulness should be enhanced. For instance, surveys in randomly selected GPs by independent teams in order to verify the authenticity of the data introduced into the monitoring system would be useful. Another option is to send teams from other areas to verify ODF status claims, before applying for the NGP awards. NGP verification visits should not be announced in advance and its strictness should be increased –while sharing with the GP ideas on how to improve. On the other hand, the monitoring system should broaden its scope. First information about use should be included, not only about coverage, as well as about management in the case of school toilets. Moreover, the system should be sensible to the arrival or creation of new households, as well as to situations when latrines stop working irreversibly. Many of these suggestions will be quite expensive, but the current waste of resources in latrines that exist only on paper clearly outweighs their cost.

Apart from trying to make the implementation of the campaign more coherent, some **improvements** could be introduced in the policy itself. This second set of recommendations aims at this, and is inspired by the experience of Himachal Pradesh and partly from Budni block. Similarly to what this research has done, it would be positive to investigate further cases of success at scale in India and learn what has worked in each context, obtaining more ideas on how to improve the campaign. In any case, the overall idea is to rethink the role of the administration:

- Modify the household latrine incentive. Converting it into a collective GP incentive would reinforce the collective perspective of sanitation. Independently of whether it is individual or collective, the disbursement should only take place after the GP has been verified to be ODF, even better if it is some months later, when sustained ODF status is proved. In the case that it is not possible to make this changes nationally, some flexibility should be allowed so that specific regions willing to do it are able to do it.

- Make the IEC component more interactive and based on emotional tools for behaviour change. Community theatre and CLTS triggering have proved to be more useful to mobilise people to change the unsanitary condition of their GP. Subsequent door to door interaction by peers has also proved to be most effective for convincing people to change their behaviour and monitor it. The participation of women and of the different sections of the GP should be encouraged.

- Motivate and recognise those getting involved at the grassroots, as the leadership from within the GPs is crucial. Collective competitive awards, public functions, involvement of higher authorities are some of the options for doing so. It is important that these do not only focus on formal leaders (Sarpanch) but also on CBOs, committees, schools and other actors whose involvement is crucial.

- Facilitate and encourage the involvement of functionaries in the sanitation campaign. At the block and district level, more contact with the grassroots for follow-up is needed if a community-led campaign is to happen. If it is difficult for functionaries to fulfil this task, support organizations could be hired or facilitators from the grassroots could be trained. Regarding district and block CEOs, an interesting option would be to 'isolate' them from quick post transfers, so that they have the time needed for taking the campaign forward and their effort is recognised.

- Enforce adequate sanitation in schools and anganwadis. This includes universal provision of facilities, but ensuring its appropriate management, too. In the case of the schools, there is a need to legally clarify who is responsible for this. Adequate working conditions (stability and sufficient wages) should be provided to those cleaning the latrines. Afterwards, address the challenges of sanitation in other public spaces (marketplaces, bus stands, temples etc.).

- Improve sustainability focus, for instance disbursing the NGP in two instalments, the second one when after verifying ODF sustains one year later. Similarly state sanitation competitions would several rounds could help maintain the interest on sanitation into the long term.

For future research

The findings of this research point to interesting avenues to be explored in future studies. These could also address some of the research limitations mentioned in the methodology chapter. Related to this, the participation of women and Indians in future studies would be useful to avoid the gender and cultural gaps affecting this research. I list here the most relevant suggestions for future research:

- Deepen the policy analysis. Focusing specifically on the policy process in several experiences of introduction of CLTS would allow a deeper understanding of how it unfolds in each of the contexts and political settings, serving as a guide for future introduction strategies.

- Revisit Budni block. Now that some time has elapsed, it would be interesting to analyse the complete results of the campaign and the sustainability. In addition, it would be worth investigating the extent to which the experience has been scaled up or replicated in other blocks in the region.

- Analyse other block level experiences. Being incipient, the block-focused strategy needs to be further explored. Researching the experiences taking place in other areas is thus needed in

order to refine the strategy and understand its full potential and the contexts to which it is more suited.

- Deepen the understanding on the GP level process towards collective behaviour change. The insights from this research (a group embrace the collective perspective of sanitation and works to make it prevalent through persuasion and pressure) are retrospective, but a research taking place in parallel to the process will allow a finer analysis, show nuances and differences between cases, as well as making more clear the influence of the different elements of the intervention.

- Compare different tools for mobilisation in sanitation. Different emotional tools (CLTS, community theatre) have proved to be effective for the GP appropriating the sanitation issue. However, it would be interesting to examine more closely how these tools play out in the different settings.

- Study cases of mutual help. That the better off help the least able does happen, but not always. It is thus very important to understand the enabling or inhibiting factors and how it can be encouraged. Therefore, a study of several experiences where mutual help happened would be very enlightening and could allow teasing out some of these elements.

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