



# **Intercultural Obstacles and Resistance in Decision-Making Processes about Water and Sanitation Solutions**

– Experiences of NGOs dealing with Sanitation Solutions

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## Abstract

Since clean water and sanitation is one of the UN Sustainable Development Goals 2030 and the water and sanitation crisis still needs improvement and more attention, this thesis will deal with non-governmental organizations (NGOs) providing different solutions for improvement of the crisis, especially in the developing countries. The aim with this research is to investigate what obstacles and resistance the organizations face when they interact with the citizens, how the decisions of agreeing on a solution are made and what participatory methods are used in those countries where the NGOs are providing their alternatives. To do so a deliberative democracy and intercultural communication approach is used as theoretical background to investigate decision-making processes and possible cultural obstacles. In order to gain data I conducted semi-structured interviews with representatives, founders and employees from NGOs that work in different developing countries. Analyzing the empirical data, recreating the interviewees' subjectivities and combining them with the theoretical knowledge and background, the findings show various obstacles within the topic of water and sanitation that influenced the project processes. Diverse obstacles need to be taken into consideration before the projects start. Further the essence of the problem lies within society that has to get a better understanding for sanitation in order to break the predominant taboo. This includes the government, politicians and policies who have to prioritize the topic and support the organizations that act upon improving the sanitation crisis. Additionally more education and training is needed for the citizens but also for NGOs implementing projects. The government needs to support this in order to finally open up people towards a possible behavior change to use not only the most modern version but according to the organizations the best fitting alternative toilet for people's living circumstances to get the most advantages for the citizens' lives.

*Keywords:* water and sanitation, environmental communication, deliberative democracy, intercultural communication, solutions, change



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# 1 Introduction

“Many Indian people have a TV connection and a mobile phone, but no toilet” (Interviewee 1, NWS: 14). This quote describes the current water and sanitation situation and presents one important aspect of it. It demonstrates the relations between personal belongings (status symbols) and basic needs. But to understand this matter the background and why the most basic things in a humanitarian life could provoke such a problem in other parts of the world needs to be explained.

Around 1,3 billion people in developing countries do not have sufficient access to clean water and almost 2,4 billion people do not have appropriate means of disposing their feces. Every day people die due to diseases related to the water and sanitation situation. The poor suffer the most from not having adequate water and sanitation facilities and the importance for basic services becomes even more visible (Bosch et al. 2002). Clean water and sanitation is Goal 6 of the UN Sustainable Development Goals 2030 (UN SDG 2030), which were introduced in late 2015 and is therefore highly relevant nowadays. Within the goals it is stated that 1.8 billion people use drinking water that is fecal polluted. Moreover the number of people not having access to basic sanitation services (toilets, latrines) is even higher with 2,4 billion people (UN SDG 2015). The coverage of sanitation facilities varies dependent on the country but Bosch et al. (2002: 373) state that over one third of the population living in rural areas in countries with lower income do not have access to water and sanitation. Thinking about drinking water protection means to think of the basics for humanitarian life. Most of the 2,4 billion people who do not have access to sanitation services live in three regions: Southern Asia, Sub-Saharan Africa and Eastern Asia (Unicef & WHO 2015a: 13), from which 25% of the whole world population lives in South Asia (Unicef & WHO 2012: 59). India, Afghanistan, Pakistan, Nepal, Bangladesh, Sri Lanka, Maldives and Bhutan are part of this area. The sanitation crisis is especially connected to India since two-thirds of citizens living in urban areas do not have a toilet and over 600 million people do open defecation in rural and urban areas (Gates Cambridge Foundation 2015). India’s current population is 1,3 billion people, which is equivalent to 17,8% of the total world population (Worldometers n.d.). Due to this population size and thereby connected the high impacts on the world, India is chosen as main example for this research. Different non-governmental organizations (NGOs) dealing with India as project country were chosen.

In India a lot of people living in villages do not have toilets. They do not have access to toilets and do open defecation e.g. in the fields. In defecation there are millions of viruses and bacteria and if those seep into fields and rivers instead of a sewage system, they get into the ground and the drinking water. Thereby the bacteria return to the people and different kinds of diseases are spread. Every year 600.000 people die from diarrhea, whereof one third of them are children (Meier 2015: 2). Other problems are sexual violations against girls and women because they are often ashamed to do their defecation during daytime in the fields and therefore do it during nighttime, where the risk of sexual harassment increases (ibid.). Women and girls are more vulnerable resulting from unsafe and inadequate sanitation services (International Development Committee 2013) towards sexual violation when defecating in the open or going to/leaving from public facilities (Gosling 2010). This shows that a lack of sanitation is not only a biological but also a societal issue. But “fixing dreadful sanitation in India requires not just building lavatories but also changing habits“ – this statement of an online newspaper article of *The Economist* (2014) shows the need for behavior change next to providing sanitary alternatives. This aspect might lead to several obstacles and possible resistance. It emphasizes not only the importance from an environmental or communication point of view itself but also from an environmental communication (EC) perspective since it includes the relationship between human’s interactions with nature (Cox 2010).

With this development in mind I want to analyze decision-making processes between NGOs, providing alternatives, and citizens in developing countries. I will investigate how the NGOs communicate with their target group (citizens and governments) and if there is resistance and other obstacles that NGOs face when getting in contact with them. Especially decision-making processes about agreeing on e.g. dry toilets as sanitation alternatives that are done between NGOs and the citizens or politicians, will be studied. This study is important in order to understand why those obstacles and resistance between citizens and NGOs occur in order to prevent the obstacles and successfully implement sanitation solutions.

## 2 Problem formulation

India is only one of many countries having to deal with lacking water and sanitation services. To improve sanitation services and to provide clean water is also a stated goal in the UN SDGs 2030. A sanitation system has one main goal, which is to “protect and promote human health by providing a clean environment and breaking the cycle of disease” and needs to be “economically viable, socially acceptable, and technically and institutionally appropriate” (SuSanA 2008: 1). Further it has to save natural resources and the environment (ibid.). The four ‘Bellagio Principles for Sustainable Sanitation’ were confirmed at the Water Supply and Sanitation Collaborative Council in November 2000 and imply:

1. “Human dignity, quality of life and environmental security at household level should be at the centre of any sanitation approach.
2. In line with good governance principles, decision-making should involve participation of all stakeholders, especially the consumers and providers of services.
3. Waste should be considered a resource, and its management should be holistic and form part of integrated water resources, nutrient flow and waste management processes.
4. The domain in which environmental sanitation problems are resolved should be kept to the minimum practicable size (household, neighborhood, community, town, district, catchments, city).” (SuSanA 2008: 2).

Those principles show a connection to the theoretical concept of deliberative democracy that deals with aspects shown in the second principle, governance, participation and deliberative democracy (Smith 2003).

The communicative problem from an NGO’s point of view is to reach decisions for the citizens of affected areas and countries for the actual use of dry toilets by people. Within the decision-making process NGOs need to overcome cultural barriers to achieve a change in behavior. Men rather than women tend to do open defecation even if they have a toilet at home because they feel freer outside (Biswas 2014). If Indian residents are willing to accept the alternatives is a question that needs to be investigated. One reason for this is that in Hinduism excrements are classified as being impure and therefore some Indian villagers believe due to their religion that it is the duty of the lowest caste to clean toilets. After a while not only excrements but also toilets were viewed as being unclean and feces are even more seen as a taboo subject in India than in the rest of the world, which emphasizes the need to focus on India. Those people do not want to have an own toilet or live close by one and therefore they are still doing open defecation (Meier 2015). Thus according to the NGOs it is not only important to build toilets but to ‘convince’ the people, living in areas without toilets, to use them. Therefore the intercultural communication concept with Hofstede’s (2005) cultural dimensions needs to be considered during the research as well as how the decisions about building a dry toilet at people’s homes are made and what resistance NGOs are facing when they approach the people. Due to the limited amount of investigated NGOs from Western countries just their side is examined, whereas the standpoints and communicative problem of Indian or also Kenyan citizens might be completely different but this is not investigated in detail here. Due to a limited research and because the researcher is shaped by the Western culture, personal insights into the Indian or Kenyan culture are missing.

A further problem is there are not enough sanitation facilities in the world yet but some organizations work to overcome the problem through ecological sanitation (EcoSan). EcoSan is a “sustainable, closed-looped system, which closes the gap between sanitation and agriculture. The EcoSan approach is resource minded and represents a holistic concept towards ecologically and economically sound sanitation” (Langergraber & Muellegger 2005: 433). In ecological sanitation human feces are used as a resource and are handled “on-site and off-site” (Langergraber & Muellegger 2005: 433). The populations in developing countries are most affected by the bad conditions since they are living in extreme poverty, peri-urban dwellers or rural inhabitants (ibid.: 434). In developing countries the aim is to decrease health risks in urban and rural areas and to save water and thus to create benefits for agriculture through reusing the water, whereas industrialized countries focus more on rural areas and reducing environmental impacts (ibid.: 442). Due to this I chose NGOs that mainly work in developing countries in areas where the conditions are not sufficient.

To analyze the water and sanitation situation in my research I will investigate NGOs that already deal with the topic and provide alternative solutions to improve the water and sanitation services in certain areas and

countries. As Fisher argued the role of voluntary associations, NGOs, in creating “vibrating societies” (Fisher 1997: 440) has changed over the last years and their importance for building relationships between society and the state increased (Fisher 1997). The role of NGOs is a form of “a changing logic or rationality of government (defined as a type of power) by which civil society is redefined from a passive object of government to be acted upon and into an entity” (Sending & Neumann 2006: 652), which is a governmental object and subject. Sending and Neumann argue that non-state actors, where NGOs belong to, have a central role in how power is working in society nowadays (ibid.). Moreover NGOs are responsible and “streamlined actors” that are able to realize governmental functions in international environments. They are central actors due to their work as “sources of expertise”, which also highlights their autonomy (Sending & Neumann 2006: 668). Due to this special position of NGOs I chose to investigate NGOs in my research as well. The NGOs are *Non Water Sanitation e.V.*, *Viva con Agua*, *Peepoople*, *the German Toilet Organization*, *the Global Water Partnership* and the *Sustainable Sanitation Alliance*. The research needs to be done in order to find out how NGOs can improve their ways of approaching the people so that they actually will learn to use the toilets.

Since the research will be done in the field of environmental communication (EC) it is important to see the topic not just as an environmental problem but also as an important topic for the specific field of EC. Environmental communication according to Cox is a “pragmatic and constitutive vehicle for our understanding of the environment as well as our relationships to the natural world; the symbolic medium that we use in constructing environmental problems and in negotiating society’s different responses to them” (Cox 2010: 30). EC is shaping people’s perceptions on the natural world and the interactions and impacts on it (Jurin et al. 2010: 14). In my research the focus lies on the communication between NGOs, the citizens and governments in a developing country and on the question how they make decisions about sanitation services and the implementation of new solutions. NGOs are such as actors involved with the citizens. New solutions mean dry toilets or sustainable sanitation bags that are sustainable and long lasting solutions for improved sanitation. Also I want to examine what resistance and obstacles the NGOs face when they are getting in contact and communicate with the citizens. One way of communicating is informing and presenting alternatives such as the use of dry toilets or sanitation bags to the citizens as well as public campaigns in schools and in the media to present economic and health benefits that arise from using the toilets (The Economist 2014).

## 2.1 Research Aim

The aim of this thesis is to investigate what resistance and obstacles an NGO that deals with water and sanitation solutions faces in decision-making processes that happen between the NGO, citizens and the government in affected countries (e.g. in India) about agreeing on sanitation alternatives. I am aiming to find out how the decision-making process can be improved and resistance can be mitigated. The final goal is to establish recommendations for NGOs to improve their communication with citizens. The used method is an analysis and a comparison of the decision-making in the six NGOs, which will be done through semi-structured interviews and finally achieved via answering the following research questions.

## 2.2 Research Questions

- What obstacles, especially what resistance do NGOs face when they are communicating about water and sanitation facility solutions with citizens in developing countries?
- How do decision-making processes between NGOs, citizens and governments facilitate deliberation and implementation of sanitation services?

## 3 Theoretical Background

Robert Cox (2006) states that the way we think and form relationships with nature is shaped by how we communicate about it, which emphasizes the importance of communication for the relationship between human beings and nature. Cox declares the way of communication “powerfully affects how we perceive both it and ourselves and therefore, how we define our relationship with the natural world” (Cox 2006: xiv). Through different communication channels, public participation processes, dialogue or debates, human’s way of thinking towards nature and environment can be considered and defined. Dialogue implies that all participants have the possibility to speak, listen to one another and to try to understand each other, which requires respect by the participants (Forester & Theekethil 2009). This states the importance and relevance of my research topic in environmental communication. Here the concept of resistance becomes important because during communicative processes between NGOs and the citizens in environmental questions and natural resource management, resistance might occur. In order to analyze the resistance of people, it needs to be defined first. Scott and Tria Kerkvliet see everyday resistance of people as an “organized confrontation that reveal disgust, anger, indignation, or opposition to what they regard as unjust or unfair actions by others more wealthy or powerful than they” (Scott & Tria Kerkvliet 1986: 108). It means they are not willing to strive for improvements in an organized or direct way (ibid.). Resistance can occur in different ways such as being “overt, implicit, immediate or deferred” (Agboola & Salawu 2011: 237). But resistance can also be an obstacle towards achieving change. “If people did not resist change and, instead, embraced change in its many forms, we would be a lot better off” (Harvey & Broyles 2010: 3). Both authors explain resistance as the “heart of the change process” (Harvey & Broyles 2010: 3) and show in their quote that resisting change is rather negative. Another focus will lie on obstacles, which can be delaying or frustrating and cause fear, hopelessness or dejection. Obstacles can be a hindrance, barrier or complication and are mostly something people try to avoid (Hunter 2010: 1). Resistance is also often negative connoted and is a behavior that also most people want to avoid. Resistance as an active behavior is complementing other obstacles that exist rather passive. Therefore resistance is connected to obstacles. Resistant people can be seen as an occurring obstacle for others.

Two other terms, behavior and habits, need to be clarified as well since they occur in this research. Behavior is dependent on individuals and its emphasis lies on learning, motivation and drive (Van Wormer 2007: 85). Human behavior relates to fulfilling human needs that can be conscious and unconscious and behavior is determined by meeting those needs (ibid.: 87). Becker (1992) defined habits as a “positive relation between past and current behavior” (Marletto 2012: 15). Also habits can be seen as the “capacity to perform a certain behavior” (Marletto 2012: 15) and as “psychological learning process wherein there is a decrease in response to a stimulus after being repeatedly exposed to it” (Sincero 2011: 1). This difference is essential in this research since residents’ behavior and habits are both connected to implementing new sanitation solutions.

### 3.1 Deliberative Democracy

To investigate the resistance that NGOs face and decision-making processes of different NGOs, the theoretical approaches of deliberative democracy and intercultural communication are used. The reason-giving process as Gutmann and Thompson (2004: 3) see deliberative democracy (DD) is mutual to many democracy concepts since people are not just “objects of legislation” and should not be treated as them. Also they are not ruled passively but instead can be seen as independent actors that participate direct or through representatives in the governance of their societies (ibid.). Democracy can be defined as a political method that is part of institutional regulations to make political decisions (Pateman 1970). Gutmann and Thompson define deliberative democracy as:

“A form of government in which free and equal citizens (and their representatives), justify decisions in a process in which they give one another reasons that are mutually acceptable and generally accessible, with the aim of reaching conclusions that are binding in the present on all citizens but open to challenge in the future” (Gutmann & Thompson 2004: 7).

For this research decision-making processes including how much the stakeholders are able to participate are

relevant. Power is vital for the research since the different relations or even a possible imbalance can influence the decision-making processes between NGOs and citizens but also among the citizens due to the distribution of roles. Deliberative democracy has been further defined as “governance through talk”, which clearly emphasizes the connection between DD and communication since democracy develops through communication (Carcasson et al. 2010: 1). This relation can also be expanded to environmental communication since DD and participation are also important in natural resource and environmental issues because of a “deepened understanding of collective problems, construction of shared visions and adjustment of preferences” (Zachrisson 2010: 274). Decisions that are made in the environmental context or those affecting the environment have various facets (Smith 2003).

“When reasoning about the non-human world, individuals and groups often find themselves pulled in contradictory directions, appealing to values that they find difficult to reconcile” (Smith 2003: 1). Langergraber and Muellegger argue “planning and decisions making processes should be participatory, by providing the users with information to enable an informed choice” (ibid. 2005: 436). Further they state an increased awareness leads to better results as long as people take part in decision-making processes (ibid.). Regarding this research that also includes informing the citizens and explaining facts and consequences of lacking sanitation in a transparent way to them so that they are able to participate and to give their opinion. Also the chances of creating common sense are higher when all citizens in the village have equal rights to state their opinion, no matter if it is women or men, girls or boys (Smith 2003). Therefore the decision-making and participatory processes will be investigated in this thesis.

The theory of DD developed due to the weakness of liberal democratic theory and practice and provides a challenge “and a critical perspective from which to judge, the institutions of contemporary liberal democratic states” (Smith 2003: 56). Smith focuses especially on two factors: inclusiveness and unconstrained dialogue (Smith 2003: 53). Creating an open, unconstrained dialogue, in which inclusiveness is also needed, enables people to participate (Smith 2003). Participation implies various parties learning about each other, “about their different interests, about their options, costs and the consequences and in the end agree on actions” (Forester & Theckethil 2009: 36). Different types of political authorities are more trustworthy and legitimate because of an inclusive and unconstrained dialogue (Smith 2003: 58). An unconstrained dialogue needs the support of “‘deliberative’ as opposed to ‘strategic’ or ‘instrumental’ rationality” (Smith 2003: 57). “[...] a collective can be described as deliberatively rational ‘to the extent that its interactions are egalitarian, uncoerced, competent, and free from delusion, deception, power and strategy’ (Dryzek 1990: 202)” (Smith 2003: 57). Smith also sees more citizens participating through DD and a variety of environmental values, which can be estimated in processes of decision-making (Smith 2003). More important aspects of DD for this research are “a more active account of citizenship” and a political environment in which “environmental values can be effectively and sensitively assessed and considered in decision-making processes” (Smith 2003: 61) because this research investigates the relations and decision-making processes between the NGOs and the citizens who need a more active account in order to participate within sanitation decisions. DD offers the opportunity for an increased engagement of citizens where a critical dialogue is developed (Smith 2003). Through participatory discussions where everyone should be included equally a dialogue between all actors is created, which will lead to a better decision-making (ibid.). In a dialogue the participants express themselves and understand each other (Forester & Theckethil 2009). Individuals create dialogues in social interactions, in which dialogue can represent different voices that can be heard “with varying degrees of ‘loudness’ in different phases” (Linell & Luckmann 1991: 9).

In what way the citizens have the possibility to participate in decision-making, especially in countries like India or Kenya, should be investigated in this research when analyzing those decision-making processes regarding alternative sanitary services. Another reason for a deliberative democracy process in natural resource management (NRM) is that through the engagement of several voices actively, the information flow is going to improve by democratic deliberation (Smith 2003), which would also be needed when making decisions about sanitation services in India because more information about improving people’s health, ensuring education or improving farming through sanitary provision could simplify a decision (-making). In this particular situation where Indian residents decide on sanitation solutions, participation might rather have a positive impact or might be viewed differently by residents and government employees than without participation. But it is important to create mutual understanding, which does not implement the agreement of people on each other’s opinions (Smith 2003). It seems important to consider both, Smith who argues that mutual understanding is important as well as with Peterson et al. (2005) who argues that there is a ‘myth of consensus’. Further Peterson et al. (2005) argue that meaning arises rhetorically and when people accept the consensus it becomes reality (ibid.). Thus

different consensus on various meanings is reached and differing realities will be created, which means that “no reality constrains decision making other than consensus among community member (Hikins 1989)” (Peterson et al. 2005: 763). This will be an important aspect that has to be considered in the research because the citizens might not agree with the NGOs’ ideas and solutions even though the NGO might think their solution is the ‘one correct answer’ (Peterson et al. 2005). Also limited participation has a positive impact for the whole societal system; only a low number of citizens should participate much. To create a stable system apathy and disinterest of a majority of citizens are important (Pateman 1970).

Trust is then a further aspect that is helpful in the process and that needs to be developed in order to achieve effective environmental decision-making within NRM. Important to consider in a deliberative democracy are also creating trust between participants and an ethical behavior because trust among people and ethical behavior enhances the participatory process. Moreover everyone should be heard and have the possibility to participate (Senecah 2004) because when that happens decisions can be made in a common way. Trust is a concept showing to what degree we can rely on other people and it refers to trusting others in general (Chappell 2012). Trust needs to be distinguished from interpersonal trust since that form concerns just the inside of specific humans, which is also important in politics such as decision-making because it happens between individuals (Leach & Sabatier 2005; in Chappell 2012: 124). A general trust can enhance deliberative discussions but interpersonal trust is the form that makes deliberators act constructively together (ibid.: 125). Chappell also argues that basic trust of others is needed to continue daily life (ibid.). Forester and Theckethil argue that trust, respect and appreciation can be reached through a dialogue (ibid. 2009: 39). Trust is an important aspect in this research since all actors need to trust each other in order to reach smooth processes and to improve decision-making processes between NGOs and citizens. Since the NGOs want to provide new and improved sanitation solutions to people in developing countries, both parties need trust for open communication and to implement the new solutions to everybody’s satisfaction.

### 3.2 Intercultural Communication

The concept of intercultural communication will also be considered since NGOs from Western countries come to developing countries to offer them alternative solutions to improve the water and sanitation problem, which often implies the clashing of different cultures. Intercultural communication implies the interaction with members of varying cultures trying to understand the other’s cultural beliefs, norms and values (Sadri & Flammia 2011). A civilization can here be defined as “the highest cultural grouping of people and the broadest level of cultural identity people have short of that distinguishes human from other species” (Huntington 1996: 57), which means that civilizations have or belong to different cultures. Trying to change the core premises of a culture can lead to resistance since culture is “intrinsicly inflexible, determined and shared by members of an organization” (Agboola & Salawu 2011: 237). The diversity of cultures as well as cultural differences need to be taken into account in this research since the NGOs represents mostly the Western culture and meet a different one when they want to implement sanitation projects in developing countries, which links the theory to the research topic.

In order to understand the concept of intercultural communication better, culture itself needs to be defined. The word culture originates from the Latin word ‘colere’, which can be translated to ‘to build on, to cultivate, to foster’ (Dahl 1998: 8). The term ‘culture’ was referred to the opposite of nature, whereas it was seen as “given in itself” and culture being “constructed willingly by men” (ibid.: 8). Dahl defines culture as “shared values, beliefs and basic assumptions, as well as any behaviour arising from those, of a given group. The author sees culture as a “set of attributes” that is dynamic and can change over time (ibid.: 9).

When two individuals are communicating and the meanings are translated into words and behaviors (symbols), it depends on the cultural background of a person how that happens and not everyone might have the same interpretation for it (Adler 1991). Every individual applies communication differently and cultural identity has at some occasions to do with the nature of this patterning. Culture on the other side can be seen as people “symbolizing a common identity” (Carbaugh 2013: 2). Cultural communication also deals with socially situated knowledge and how it is needed in order to interpret the common significance of communication to participants (Carbaugh 2013).

Important to consider is that an investigation of only participatory planning and decision-making processes could overlook or slip another important dimension of sanitation, the gender perspective (Langergraber

& Muellegger 2005: 436) that is one of the cultural dimensions that are presented below. Therefore another theoretical background of intercultural communication will be used. Intercultural communication was defined as:

“The sharing of information on different levels of awareness and control between people with different cultural backgrounds, where different cultural background include both national cultural differences and differences which are connected with participation in the different activities that exist within a national unit” (Allwood 1985: 3).

Hofstede presents a model of six different cultural dimensions (Tavanti 2013), where he puts national dimensions in relation to cultural values. Those dimensions are:

1. Power as equality vs. inequality
2. Uncertainty avoidance vs. tolerance
3. Collectivism vs. Individualism
4. Masculinity vs. Femininity
5. Temporal orientation vs. Long-term Orientation
6. Indulgence vs. Restraint (Tavanti 2013: 8).

*Power distance*, the first criterion describes the extent to which members of a society expect and accept that power is unequally distributed, e.g. an employee being afraid to tell his/her chief that they do not agree with him/her. It reflects on the range of answers found in different countries to the basic question of how to handle that people are not equal. It will be measured between a small and large *power distance* (Hofstede 2005). Also power can be connected to deliberative democracy, which emphasizes the importance of looking into both theories for the research. *Uncertainty avoidance*, the second criterion describes the degree in which members of one culture feel threatened through uncertain or unknown situations. Some cultures are more anxious than other countries and those cultures incline to be expressive. In weaker *uncertainty avoidance* countries the anxiety level is not very high and e.g. emotions or aggression are not shown (Hofstede 2005: 171). This criterion is interesting to examine in this research because those sanitation solutions can be new to some citizens and represent an uncertain situation. Therefore the criterion needs to be investigated as well. The third criterion, *individualism vs. collectivism* contains the question to which extent individuals are integrated into groups. Individualism relates to societies where individuals have loose relations and everyone looks just after him-/herself and the immediate family. Collectivism is the opposite where people live in societies belonging to “strong and cohesive in-groups, which throughout people’s lifetimes continue to protect them in exchange for unquestioning loyalty” (Hofstede 2005: 76). The fourth criterion, *masculinity and femininity*, considers the level of variety of different gender roles. That means that a society is for example called masculine when emotional gender roles are pronounced and men are seen as assertive and tough, whereas women are rather “modest, tender, and concerned with the quality of life” (Hofstede 2005: 120). The gender perspective is important to take into account in this research because women and men benefit differently from improved sanitation facilities. Through the different needs and priorities of women and men they cannot be seen as a homogenous group but need to be viewed separately and the activities need to be adapted (Langergraber & Muellegger 2005).

The next dimension, *long-term vs. short-term orientation*, can be connected to economic growth (Hofstede 2011). Values of the long-term pole were “perseverance, thrift, ordering relations by status, and having a sense of shame”, whereas the values of a short term pole were “reciprocating social obligations, respect for tradition, protecting one’s ‘face’, and personal steadiness and stability” (Hofstede 2011: 13). An example showing the difference of short-term and long-term orientation is when important events already took place in the past or happen right now (short-term) or they are going to happen in the future (long-term) (ibid.: 15). The last dimension, *indulgence versus restraint*, is complementing the fifth dimension and focuses on issues that are not covered in the other dimensions. Indulgence signifies a society that enables “relatively free gratification of basic and natural human desires related to enjoying life and having fun”, whereas restraint represents a society that “controls gratification of needs and regulates it by means of strict social norms” (Hofstede 2011: 15). Those dimensions are taken into account when analyzing the intercultural communication between the NGO and citizens after conducting the interviews. In the end it will be examined which of the cultural dimensions can be recognized and applied again in this research.

In inter- or cross-cultural situations wrong labeling of behavior and situations can lead to misperceptions, misinterpretations, misunderstandings or misevaluations (Adler 1991). Adler argues furthermore that two national groups do not see the world equally. She claims perceptions is a process where individuals “select, organize and evaluate stimuli from the external environment to provide meaningful experiences for himself or herself” (Adler 1991: 3). The characteristics of intercultural communication are interesting to study in my research since German and Swedish NGOs encounter Indian or Kenyan citizens, which might lead to obstacles, misunderstandings and resistance.



## 4 NGOs

In this research six NGOs were investigated and interviewed. The small sample was chosen due to their accessibility and a personal relation to some of them. Next to many other organizations worldwide a focus was put on NGOs in Germany and Sweden was on-site in those countries. In order to get a better understanding of what they do and how they work each organization is presented in the next part. The figure below shows how many countries use improved sanitation services in 2015 and it exemplifies that in 47 countries, areas and territories less than half the population uses improved sanitation in 2015. Improved sanitation implies the coverage of basic sanitation as well as the sustainable usage, meaning on a long term, e.g. dry toilets or sanitation bags. Especially African and South Asian countries use less than 50% of improved sanitation services. Those areas are exactly where the six investigated NGOs work mostly, which is also why they were chosen for further investigation. The NGOs *Non Water Sanitation (NWS)*, *Viva con Agua* and *Peepoople* were chosen because they work mainly in African and South Asian countries and wanted to investigate carry out projects in those regions. NWS was selected because the researcher was familiar with the project in India and wanted to explore more about the background. *Viva con Agua* instead is a well known NGO in Germany and was chosen due to their reputation and being the most growing NGO in the country. *Peepoople* was selected due to their approach that is different from the others implementing latrines and dry toilets. Whereas the other three NGOs, *German Toilet Organization (GTO)*, *Global Water Partnership (GWP)* and *Sustainable Sanitation Alliance* work more as a network and partner to those organizations that do projects. The latter work on a more global level and support other organizations through consulting, financial help or developing collaborations, which is why the NGO was selected. The GTO was investigated more since they were a partner organization of NWS and also because of their work on a country level. A similar approach was used selecting GWP since it is a Swedish organization also working on a more global level. The last three NGOs were chosen to be able to get a broader view on the topic water and sanitation since they work as supporting organizations that partner with smaller organizations. Their work implies that they use a different approach for improvement through working on a bigger and global scale.

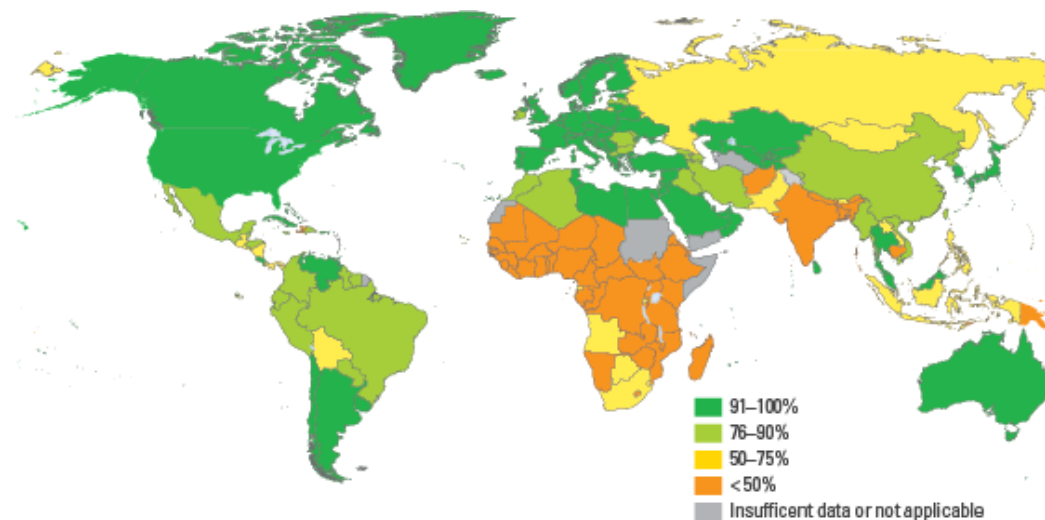


Figure 1: Use of improved sanitation worldwide in 2015. Graphic: Unicef and WHO (2015b)

### 4.1 Non Water Sanitation e.V.

*Non Water Sanitation e.V.* (NWS) is an NGO that works since the establishment in 2012 in Berlin, Germany within the topic of water, sanitation and hygiene (WASH). Their goal is to achieve a positive and long-term change for people's lives (Non Water Sanitation n.d.). Further they want to educate about the importance of sanitation and hygiene as well as to offer the facilities through constructing toilets and the related infrastructure. The organization aims to offer sustainable sanitation solutions to everyone that needs them worldwide. Therefore they focus on "defining feasible projects, implementing tailored solutions and ensuring long-term success

through establishing and maintaining relationships” (ibid.). The NGO works on projects in Germany and India together with their partner organizations such as the German Toilet Organization or EcoSan Services Foundation. The organization uses dry toilets, Urine Diversion Dehydration Toilets (UDDTs) to improve the sanitary situation in India. Those toilets are part of the EcoSan approach and include a separated storage of the different components (urine and feces) and they are collected in particular tanks or chambers. Through the storage time the bacteria of the feces will be killed (Peuser 2009). Urine and feces can after a certain time be used as fertilizer. The NGO does different projects such as providing 400 children in a tribal school in Maharashtra, India, with dry toilets. During those projects they founded another company, EcoToiletten, which provides a rental service of mobile composting toilets at festivals, construction sites or public spaces (EcoToiletten 2012).

## 4.2 Peepoople

*Peepoople* is an organization that was founded 2010 in Stockholm, Sweden because of the high population in the world living without basic sanitation. The idea behind the peepoo bag was to invent a low-cost product that is available to those with limited means. Peepoo itself is presented as a “personal, single-use, self-sanitizing, fully biodegradable toilet that prevents feces from contaminating the immediate area as well as the surrounding eco-system” (Peepoople n.d.). After using a peepoo bag the feces will turn into fertilizer that aims to improve livelihoods and will increase the food security. The location of *Peepoople* in Stockholm was closed down in November 2015 due to financial problems but a location in Kenya is still working and will continue to spread the peepoo bags (ibid.). *Peepoople Kenya* was registered and started to function as an NGO in June in 2010. First the Peepoo solution has been implemented in 2009 in Silanga village in the Kibera slum in Nairobi, Kenya, where they started delivering the peepoo toilets and also explained how Peepoo worked in larger functions (Peepoople Kenya n.d.). In the long run the NGO aims for the Peepoo system to be self-sustainable without grant and that the bags will be affordable for the users (ibid.).

## 4.3 Viva con Agua

*Viva con Agua* (VcA) was founded in Germany in 2006 by the football club FC St. Pauli in Hamburg, Germany. VcA is a network of people and organizations that strive to establish access to clean drinking water and basic sanitation for all humans worldwide. The organization uses creative and joyful activities to raise awareness for the global WASH issues and also raise funds for water projects of their partner organization *Welthungerhilfe* (German Agro Action (DWHH)). The mission of VcA “Water for All” is reached by three universal languages: music, arts and sports (Interviewee 2, Viva con Agua: 18). The NGO has four terms that build their organizational fundament: development, connection, joy and potential (Interviewee 2, Viva con Agua: 18). One of the current water projects they are doing is in India and runs until 2016. The project shall increase the availability of water and the access to humane sanitary provision especially for the citizens that live on the margin of the society of 13 districts in Bundelkhand. Thereby the project should optimize the health and economic situation of the people. The *Welthungerhilfe* is planning to build wells and facilities to collect and save rainwater. The focuses of the project are trainings and education in constructing, maintenance and repairing the sanitation facilities (Viva con Agua b n.d.).

## 4.4 German Toilet Organization

The *German Toilet Organization* (GTO) is a non-profit organization that was founded 2005 in Berlin, Germany. It is a network of people who bring experiences and ideas from different subjects in order to work for one same goal. Access to clean toilets and sustainable sewage systems for all humans worldwide is their vision. Their mission is to save the environment and to improve public health through increasing the awareness for clean and sustainable toilet and sewage systems as well as their promotion/support and implementation. They work to improve the sanitary provision to save the environment, public health and humans’ dignity worldwide. The NGO does that in three different steps: breaking the taboo and recognizing the value of sanitary provision, expert knowledge of sanitation will be contributed and the new gained knowledge of toilets will result in concrete projects. The GTO emphasizes the importance of technical aspects in the same amount as sociocultural aspects. The projects are discussed with the users/target group and adapted to local and cultural needs (German Toilet Organization n.d.a). The organization’s focuses are public campaigns, educational work and providing

knowledge as a partner of the UN worldwide through various events, projects or presentations. Furthermore capacity building for employees of other NGOs and projects aiming for sustainable improvement of the sanitary provision especially at schools in Germany and abroad are included in the working field of the GTO (German Toilet Organization n.d.b).

#### 4.5 Global Water Partnership (GWP)

The *Global Water Partnership* (GWP) is a global action network that has its focus on fostering social change processes and thus is advancing sustainable management and the development of water resources. In 1996 the Global Water Partnership was founded in Sweden in order to support integrated water resource management (IWRM), a process that encourages “the coordinated development and management of water, land and related resources in order to maximize economic and social welfare without compromising the sustainability of ecosystems and the environment” (Global Water Partnership 2012b). The vision of GWP is a water secure world and their mission is to promote “governance and management of water resources for sustainable and equitable development” (ibid.). The network works together with different organizations, supports them during projects and provides stakeholders a platform where dialogues are facilitated and will result in changing policies, laws or institutions. Water secure world according to GWP includes having enough water to be able to endorse social development, ecosystems and sustainable and inclusive growth. It also implements to decrease poverty and to improve human lives and living standards. Furthermore GWP supports countries to combine water resource planning and other operations at trans-boundary to local levels in order to create coherent and sustainable actions (Global Water Partnership 2012a).

#### 4.6 Sustainable Sanitation Alliance (SuSanA)

The *Sustainable Sanitation Alliance* (SuSanA) is an open international network that works together with different member organizations who share the same vision on sustainable sanitation and who work on understanding viable and sustainable sanitation solutions. The network combines on the ground experiences with an active community of researchers, academics, policy makers or practitioners who strive to encourage innovation and best practices in policy, planning and implementation. SuSanA is a platform for different actors that all aim on solving the sanitation crisis through networking, sharing and managing knowledge (SuSanA n.d.). The network aims towards more sustainable sanitation solutions. In a report of 2008 SuSanA states that their overall aim is to play a part in achieving the Millennium Development Goals (MDGs) through supporting and promoting sanitation systems that include all aspects of sustainability (SuSanA 2008). Since there are still 2,5 billion people worldwide without access to improved sanitation and 1 billion people still doing open defecation, the MDGs haven't been met in 2015. Therefore the Sustainable Development Goals (SDGs) included a new sanitation goal that SuSanA wants to contribute to. With currently 268 partners, the NGO wants to work together to reach the common goal of creating sustainable sanitation for everyone (SuSanA n.d.).

## 5 Methodological Approach

Cresswell sees qualitative research as an approach to investigate in and to better understand “the meaning individuals or groups ascribe to a social or human problem” (Cresswell 2014: 4), which is part of my research purpose. According to Smith and Bowers-Brown qualitative research has many advantages such as exploration, detail and sensitivity (Smith & Bowers-Brown 2010: 115). Silverman (2015) claims that researchers that do qualitative research can be more flexible regarding gaining data and the whole process. This is relevant for this research since it was not possible to forecast how the research will turn out and how many stakeholders would agree on an interview beforehand.

This research will just be qualitative, where qualitative interviews with four German (*Non Water Sanitation e.V.*, *German Toilet Organization*, *Viva con Agua*, *Sustainable Sanitation Alliance*) and two Swedish NGOs (*Peepoople*, *Global Water Partnership*) were conducted. Investigating the six NGOs through the interviews enabled the researcher to get deeper insights and to compare them in the end. Afterwards a recommendation on how decision-making processes can be improved through learning about intercultural communication and deliberative democracy will be developed. Finally the research questions will be answered:

- What obstacles, especially what resistance do NGOs face when they are communicating about water and sanitation facility solutions with citizens in developing countries?
- How do decision-making processes between NGOs, citizens and governments facilitate deliberation and implementation of sanitation services?

### 5.1 Semi-structured Interviews

Semi-structured interviews were chosen for this research because of its flexibility to adapt questions. The interviewer is able to pick up on questions the interviewee said, which makes the interview process more agile (Bryman 2012: 471) than for e.g. structured interviews. It allows the researcher to be more open and change the questions depending on how the interviewees answer and understand the questions, which results in a more natural conversation (Smith & Bowers-Brown 2010: 118). In order to do the semi-structured interviews, to achieve the best possible results and get open and detailed answers of all interviewees, one general interview guide was developed (Bryman 2012). But also the principles for implementing a sanitation system were taken into account (e.g. the decision-making process that should involve participation of all stakeholders (SuSanA 2008)). The interviewees should be open-minded and feel comfortable to answer the questions without feeling criticized. Therefore resistance and obstacles were renamed as ‘difficulties’ or ‘problems’ (see Appendix). The interviews were recorded and transcribed afterwards with the purpose of simplifying the analysis and to go deeper into details about themes such as e.g. cultural differences or decision-making processes. The analysis was not done on a word level but focused on the different themes that arose during the interviews.

All in all I conducted six semi-structured interviews with representatives of German and Swedish NGOs. The data was then analyzed and interpreted with a special focus on resistance, deliberative democracy and intercultural communication aspects. Skype and the telephone were the most used channels for the interviews because the stakeholders and the researcher were often not in the same country. Otherwise they were done in person, in a face-to-face situation, which was done once with the founder of *Peepoople*. The interviews were then analyzed and interpreted. The interviews were all unique in the way they were conducted (see Table 1).

Table 1: Presentation of the Interviews.

Number	Organization	Date	Position in NGO	Language	Channel	Length (in min.)
1	Non Water Sanitation e.V.	11.02.16	Co-founder	German	Skype	1:11:20
2	Viva con Agua	16.02.16	Co-founder	German	Skype	48:10
3	German Toilet Organization	18.02.16	Employee	German	Telephone	25:02
4	Peepoople Sweden	19.02.16	Founder	English	Face to face	45:19
5	Global Water Partnership	18.03.16	Employee	English	Skype	36:06
6	Sustainable Sanitation Alliance	29.03.16	Co-founder	English	Skype	57:03

It is important to keep in mind that semi-structured interviews also have limitations. First of all the number of interviews is not enough in order to be able to generalize and to gain results that are reliable. Also the channel of the interviews, mostly via Skype, was not always the best since the Internet connection could break in between and it is also easier to gain trust of the interviewee in a real face-to-face situation. Interviews in general have deficiencies since the interviewer asks certain questions that lead into predetermined directions and therefore might limit or change the outcome of the interviews. It is important to say that the results might be biased through the answers interviewees actually gave even though the interviewer tried to avoid bias within interviewee's answers through asking additional questions to be more critical. The interviewer could not really assess if interviewees have been very positive, almost promoting their work or if they have been critical and honest from the beginning, which is why they could still have been biased.

## 5.2 Data Analysis

To be able to analyze and interpret the interviews the qualitative content analysis after Mayring (2010) was used. The basic concept of the qualitative content analysis after Mayring consists of analyzing texts, in this case the interviews, systematically through working step by step on the material together with the developed category system (Ramsenthaler 2013). When analyzing the interviews parts of the answers were summarized and generalized in order to develop codes and categories. After labeling relevant words or sections that were surprising for the researcher, repeated aspects or sections that could be connected to theoretical concepts, the next step was to decide on the most important codes and to combine them to minimize the content of the material. This resulted in a clear concept with categories that still represented the starting material and did not distort it (Mayring 2010). The category system included the definition of all analysis units (code units, context units and the evaluation unit). Those helped to dismantle the texts and to edit it gradually (Ramsenthaler 2013). In the process of building categories they were revised several times in order to make sure that they represent the information from the interviews. The goal was to make the interview answers comparable and to find similarities and differences to be able to generalize the results to answer the research questions.

In this research the categories were created in a deductive way, which means that supporting theories predefined the categories. The evaluation tool was set before through theoretical consideration (Mayring 2010). Since the two approaches of deliberative democracy and intercultural communication were used, some example categories that derived from the theoretical background are e.g. decision-making, participation or gender, culture and communication. In a deductive approach it relies not only on theories that are chosen before but also on the interview guide that is developed regarding the theories, which was done through asking specific questions that would support the theories afterwards. In the analysis it was analyzed if the preset categories appeared in the interviews and how. Furthermore it was investigated if additional categories appeared than those that were preset from the interview questions since the interviewees could also value other categories as important for sanitation. The openness towards other categories included new important themes that were surprising or mentioned several times by the interviewees.

Moreover Hofstede's (2005) cultural dimensions pointed out the dimensions that were used to analyze

and interpret the interviews. The answers of the stakeholders were analyzed according to the six criteria: *Power distance, uncertainty avoidance, individualism and collectivism, masculinity and femininity, temporal orientation and long-term as well as indulgence and restraint*. Dependent on the interview results it was evaluated which specific cultural dimensions by Hofstede occurred and could be applied and which were interpreted further.

The NGOs were compared on what solutions they used, what resistance they faced and how that could be overcome. To do the evaluations important aspects needed to be defined beforehand (e.g. obstacles). In the end results were discussed and a conclusion was drawn.

## 6 Categories

After analyzing all interviews, finding codes and summarizing them in three rounds the final codebook included 29 different themes. All themes are listed in the appendix for better understanding. Those themes were then connected to each other in order to find categories that would cover related themes. Next to the categories decision-making, participation, obstacles, resistance, cultural differences, gender and power relations that emerged from the theoretical background and the interview guide before the analysis, eight more subcategories could be found. How often the interviewees mentioned a theme determined finding the themes and categories.

The interviewees used different words and explanations for obstacles. After the analysis words such as difficulties, problems and challenges are all summarized under the main category *resistance and obstacles*. The obstacles that occurred to the interviewed NGOs can be of different kind, which will be explained later. Many different obstacles were stated in diverse situations, which is the reason for the head category *resistance and obstacles*. The head category was chosen as superior category because all interviewees had to deal with the topic and they all spoke often about it even if they evaluated the projects and their work as successful in the end. Explaining the head category further it is important to distinguish between resistance and obstacle. Resistance is an active behavior done by the people, whereas obstacles are unconsciously present by certain circumstances (e.g. a culture) or by the people. This difference needs to be taken into account in the further explanations. After the analysis the head category and general obstacles was divided into three main categories that are cultural, economic and political obstacles. Those main categories contained 12 subcategories including the taboo and behavior, finances or transparency (see Table 2).

Table 2: Overview of the created Categories.

Resistance and Obstacles		
Cultural Obstacles	Economic Obstacles	Political Obstacles
Gender	Finances	Government
Taboo	Technology	Power Relations
Behavior, Values, Norms		Decision-Making
Language		Participation
		Transparency
		Wrong Understanding

After finding the themes and categories some of the themes were excluded again even though the interviewees spoke a lot about a topic such as collaboration, request for help, or communication because they were not relevant in order to answer the research questions. Therefore a higher focus lies on the main and subcategories.

Cultural obstacles contain the sanitation taboo, language and behavior. Even though the second category, economic obstacles, does not have so many subcategories, it is still an important category because all interviewees mentioned several examples that could be recognized as economic obstacles many times in different contexts of each interview. The subcategory finances, is an extra category because the interviewees explained financial difficulties in many ways. The political obstacles just appeared in the analysis where it became clear that a lot of different political obstacles hinder the project processes or led to successful project implementations when the local government was supporting sanitary provision.

## 7 Results

When analyzing the data it occurred that various topics and themes appeared several times throughout all interviews. Some topics were similar among the answers of different NGO representatives, whereas others only were mentioned by specific organizations. The findings of this research were in some ways surprising because even though the focus was set before the interviews through the theoretical background and the interview guide, some new aspects that were not considered earlier showed up in the answers. Further examples for cultural, economic, political obstacles will be explained in the next step. Resistance that is another focus of this research turned out to be one of the obstacles that NGOs faced during their project work and will be explained after explaining other obstacles.

To start with the image of a Western organization having all tools, being well educated and going to a developing country to educate the people there and provide them with the 'best solution' is not applicable anymore. One interviewee admitted that he was surprised to see that there were already organizations in India that build dry toilets. That statement confirms that there are still prejudices and ideas of some developing countries that are not true any longer. The image was also addressed in another interview. "It is not like this any longer that 'white engineers come to Africa to tell the local population that they can now build them wells because they know that the population needs them'" (Interview 2, Viva con Agua: 18). Against the thought of the NGOs being the ones going to the developing countries and into villages telling the people that they have a solution for their problem, it was the other way around. The people (mostly women) came to organizations in their countries to let them know they saw a problem in not having enough wells or not having enough sanitation facilities and wanted it to be changed (Interview 1, NWS: 11; Interview 2, Viva con Agua: 18; Interview 4, Peepoople: 33). Since it is the opposite nowadays the actual project country gives the impulse for a new project and expresses their needs for an improvement. Reflecting on this development it is a positive development and shows that people are on the right track and develop towards a better future when the people themselves express a need for a change. It also shows that their attitudes and behavior might change, of course it doesn't happen everywhere and in each developing country but it is a start towards improvements. Looking to the aspect of resistance, one of the main aspects in this research, this development shows that the citizens, local organizations or governments that make the request to get help for sanitary provision, cannot be that resistant towards change and new solutions and might actually be open towards change. But this needs then also be put into relation with other factors that will be explained later in this section since aspects as a taboo or behavior change play a role as well as that not the citizens that made the request cannot all be generalized.

Occurring problems were also financial ones, e.g. one NGO could not continue with other projects due to a lack of financial resources and no investors (e.g. NWS). Another NGO invested too much money and had to change strategies in order to continue, which meant closing down their home location (e.g. Peepoople). Furthermore governments of developing countries did not have enough money to copy a project and to do it in neighbor villages, where the circumstances were similar and sanitation services were urgently needed. Moreover the construction of those sanitation facilities (dry toilets) and wells to offer drinking water, were too expensive. Related to that were technological obstacles that were also a big part in the work of sustainable sanitation. To name just a few examples, NGOs had to reject projects beforehand because the technological effort would have been too big, e.g. drilling holes 400m deep for wells to function properly (e.g. VcA). Also aspects as repairation, maintenance and purchasing spares were part of obstacles (Viva con Agua: 24; Non Water Sanitation: 9).

Political obstacles are important to consider since projects can be hindered when governments do not support those. Most of the times the government did not put a high priority on sanitation yet. Furthermore GWP stated since they are working on the policy level that even if sanitation is supported by the politics and the government; and they changed and put it as a priority, it does not automatically guarantee a change on the ground, with the people (Interview 5, GWP: 47). Transparency in communication is also an obstacle that needs to be overcome in order to provide the citizens with enough information to be able to create mutual understanding in the end. Wrong understanding correlates with transparency as well since clear information would enhance a better understanding. Further relations between the categories are presented in the results.

Feedback and reactions of the citizens were most of the times positive and according to the interviewees they appreciated the projects and the new sanitation facilities. One other example also showed that negative feelings as jealousy could have been involved as well when some people and villagers also wanted a new dry



toilet but were not allowed or not prioritized to get one because they already had a pit latrine (Interview 1, NWS: 6). Even though the interviewee interpreted this reaction as negative, I think it needs to be seen in a broader context. This shows the positive effect of the organizations' work and that the citizens were willing to test and try out the new solutions.

A lot of organizations also talked about collaborations with other stakeholders, especially in the affected countries those collaborations were helpful for the implementation of the projects. The German Toilet Organization emphasized the importance of a local partner several times (Interview 3, GTO: 29f.) in order to achieve successful projects. The representative of VcA also explained that they work together with local partner organizations (Interview 2, VcA: 24). To avoid resistant behavior and achieve successful sanitation projects it is important to collaborate with local organizations, which was also emphasized of the founder of Peepoople who first did not collaborate with others and now had to close down the location in Stockholm. This organization is now focusing only on the Kenyan location and starting to collaborate with a Swedish organization (Interview 4, Peepoople: 39).

Women and girls are described as more vulnerable than men because a lack of sanitation has more severe consequences for them. Firstly when girls get their period and there are not enough sanitation services at school they might stop to attend school, which can lead to a complete drop out (Interview 2, Viva con Agua: 22; Interview 4, Peepoople: 36). Furthermore the lack of sanitation leads to sexual harassment (Interview 4, Peepoople: 36) because women then have to do open defecation such as men but because women are more often ashamed to do that, they would wait until it is dark outside. That leads to men taking advantage of the situation (Meier 2015: 2). This shows the gender perspective of water and sanitation.

Education was an important aspect regarding the children in schools and that they, especially girls are hindered to attend school if there weren't enough or no toilets and washing rooms at all, which led to them stopping going to school. This pattern has consequences on the girls' education and most of the times negative impacts on their future because without education they are most likely not able to earn money on their own. Since the interviewee of *Viva con Agua* argued that school attendance (which is possible through adequate sanitary services especially for girls) is important for the students' future because then they will be able to study or work, get an own income and through all that be able to participate more in society and societal issues (Interview 2, VcA: 24). Further education had also an importance concerning the projects themselves since the citizens there had to get a certain training and education to be able to maintain the project and make it long lasting and sustainable. The citizens were responsible to continue the work of the project even after the completion. An underlying issue here, that wasn't mentioned by the interviewees but is needed for the project development to work, is trust. The organizations need to trust the constructions companies and those who will and can continue the work of maintaining and repairing pipes, wells or dry toilets. Also the citizens need to trust the organizations. That was described in the first interview when the interviewee talked about a project in the school where the members of the NGO could gain the parents' trust through first winning children's trust (Interview 1, NWS: 8;10). That helped the process of implementing new toilets in the schools. As Senecah (2004) and Chappell (2012) argue trust is necessary for successful environmental decision-making. Also trust between people enhances the participatory process (Senecah 2004), which is valuable for sanitation projects.

But on the other side a surprising fact was that the families that got the dry toilets by accidents, meaning they did not want them earlier, they most likely stuck to their habits and did not use the toilets at all. Even though all other families in the village who wanted those toilets and got them, also used them and could led as 'good examples'. Instead those families who got the toilets without wanting them, they still did open defecation (Interview 1, NWS: 13). This can be due to their habits and years of traditions that they would not change with in short time. When villagers did open defecation for 40 years under a starry night, they do not agree to change to go into "a small cave" (Interview 1, NWS: 13). This means it is not only a question of available sanitation services but much more than that. It is deeply connected to people's values, beliefs and traditions as well as social norms and culture. According to the first interviewee also to a lack of a hygiene revolution that happened in the 80s (Interview 1, NWS: 14). Here it is important to connect this to the earlier explained concept of habituation. Therefore the citizens cannot be blamed for not being used to the toilets and not wanting to change their traditions. Moreover it is possible that the 'right' solution for the citizens is not developed yet, which would increase a sustainable usage. Hence, it needs years of work to change the citizens' attitudes and behaviors. According to the researcher the citizens need to understand what the lack of sanitation means to them in terms of health and child mortality but also what positive consequences appropriate sanitation has for them, e.g. improved farming. This needs to be done in a way that also respects the aspects of deliberative democracy, which

is why not only the citizens need to change but a change on many levels is required, from the government and possibly also from the NGOs. The example situation strongly connects to the second category of cultural obstacles. One interviewee of the GTO spoke about an approach that was widely discussed contradictory about its efficiency (Interview 3, GTO: 31). This is the Community Led Total Sanitation (CLTS) approach, which aims to achieve and sustain an open defecation free (ODF) status (Kar & Chambers 2008: 4). Within the approach a community is able to use Participatory Rural Appraisal (PRA) methods that allows them to analyze the sanitation conditions in a village and to internalize the impact of open defecation on people's health conditions and the entire neighborhood environment (ibid.: 7). That example shows a paradox in the two examples of people's behavior. It shows the difference in behavior of these people and also that some are still resistant towards the new dry toilets and it is difficult to generalize how resistant or not resistant the citizens are because there are different levels of this behavior.

The experiences of the interviewed NGOs showed that all people are the same and have a need for drinking water as well as for appropriate sanitation services. One interviewee even said: "We would have expected that there would be more cultural differences but there weren't" (Interview 4, Peepoople: 38). The one difference that appeared to be important for most NGOs were those between wipers and washers, which means that people have different bathroom habits connected to their religion. Wipers are mostly Christians and washers mostly Muslims (Interview 4, Peepoople: 33). For the NGOs (GTO, Peepoople, SuSanA) this distinction was important in order to adapt the technologies regarding the washers' and wipers' habits, which also included the use of toilet paper or water (Interview 3, GTO: 30; Interview 4, Peepoople: 33; Interview 6, SuSanA: 54). Those local varieties point towards cultural distinctions, the "enunciation of culture as 'knowledgeable', [...] adequate to the construction of systems of cultural identification" (Bhabha 2006: 155), that highlights the separation between tradition and modernity (ibid.: 156). Some of the cultural barriers were already explained above. SuSanA explained that language was a big barrier that could also not be overcome (Interview 6, SuSanA: 53). Others used body language and communicated with the people in that way (Interview 1, NWS: 8). Viva con Agua spoke about three languages that everyone would speak: music, arts and sports (Interview 2, Viva con Agua: 26), which is part of their organization philosophy. Even though that sounds reasonable and nice it probably still does not overcome the real language barrier as presented in the first example. The interviewee explained that the language obstacle is never taken seriously enough also on a global scale but for water and sanitation it is not the biggest obstacle (Interview 1, SuSanA: 53).

The sanitation taboo is very big and important to consider within cultural obstacles that also include issues as transparency and enough information. In India sanitation was a topic of the 'untouchables', where the lowest caste was responsible to deal with feces (Interview 1, NWS: 5). The taboo plays a big role in many developing countries, especially for people in India where it is forbidden by law to actually touch feces and to deal with it (Interview 4, Peepoople: 38). This situation is a big obstacle and barrier not only for the people themselves but also for different NGOs trying to implement sustainable sanitation there because it is needed to deal with feces and use them and the urine as a fertilizer. The taboo leads then to the next cultural obstacle of behavior, norms and values of people and related to that to actual behavior change. In order to achieve sustainable sanitation people need to change their behavior regarding dealing with their feces, becoming more open, commit to communicate and deal with the topic of sanitation. The citizens of countries where basic sanitation is missing need to understand what advantages it brings to get basic and sustainable sanitation according to their needs and circumstances. This is important because the citizens see the "modern flush toilets" in TV and also expect to get the most modern toilet and they do not accept a dry toilet because it seems "primitive" (Interview 6, SuSanA: 54).

So the cultural obstacles are very important and also the taboo and people's behavior are correlating with each other. Besides the representative of SuSanA declares that the sanitation taboo is even bigger and starts already with doctors that do not examine that zone of the body enough until a human gets actually sick and then it is too late. The interviewee states that there is a general malaise amongst professionals and that people just do not want to deal with the topic (Interview 6, SuSanA: 55). This is an extreme view that only one interviewee had. Nevertheless it is also important to get to know that opinion in order to relate it to the rest and the taboo still seems to be a huge factor that organizations need to deal with when coming up with sanitation solutions. The earlier mentioned topic of transparency of sanitation related issues can only be achieved when the taboo is broken.

The interviewee of *Viva con Agua* specified that WASH (Water, Sanitation, Hygiene) projects are "boost machines" (Interview 2, Viva con Agua: 23) because people see quickly positive changes and explained

a bit later in the interview that all humans drink water and need it but it would be completely different with sanitation. Here the question occurs how sanitation can be so different when the interviewee earlier compared WASH projects to boost machines. Due to answers and reactions of other interviewees (e.g. Interview 4, Peepoople: 43; Interview 6, SuSanA: 56), it can be questioned if a generalization of WASH projects being boost machines can be so easily made due to the contrast to the idea that it is hard to achieve behavioral change.

## 7.1 Connection to theories

After analyzing the interviews and creating the different categories, they can now be put into relation with the theoretical concepts. When analyzing the categories with the theoretical approach of intercultural communication, the six cultural dimensions of Hofstede (2005) will be taken into account and it can be seen which of the six are represented in the data. The dimensions are going to be the main focus and the characteristics of deliberative democracy are going to be connected to each cultural dimension in order to have a red thread and to combine both theories at once.

One of the categories, political obstacles, has the subcategory power relations that is covered in the cultural dimension *power distance* that describes the extent to which members of a society expect/accept that power is not equally distributed (Hofstede 2005). This cultural dimension appeared in projects of some organizations, for example when the interviewee of NWS did not say there were power relations but then talked about the project in an Indian village where some women behaved very shy and came barely out of their houses (Interview 1, NWS: 10). The founder of *Peepoople* explained that they experienced power relations in Kenya since the men there earn the money and have then the power to decide if they would buy the peepoo bags or food for their families or if they would rather buy beer for themselves instead (Interview 4, Peepoople: 36), which relates to the subcategory decision-making. In a different context the interviewee explained that women also had a say in some situations, which is necessary for equal participation and no big power relations to achieve a deliberative democracy (Smith 2003). But this contradicts the first example. Those two examples also show the limitations of the interviews because all interviewees speak about their experiences that can be subjective and could bias, which makes it harder for the researcher to distinguish between objective and subjective experiences. The representative of the GWP explained more in general that there are power imbalances, which can also hinder a successful project process. These power relations lead to that the most vulnerable people in society are still kept most vulnerable and it is difficult for them to change it when they do not have the mandate and resources (Interview 5, GWP: 48).

Here, power can also be connected to deliberative democracy and it shows that those partly unconsciously existing power relations can hinder a deliberative democracy and the to DD related decision-making processes (Smith 2003). With power imbalances an equal participation in decision-making that is preferred in DD (Smith 2003) cannot be reached so easily. NWS mentioned that they created women groups to discuss sensitive topics (Interview 1, NWS: 8), which shows that the NGO tried to balance existing power structures and to include even those shy women and to give them a chance to speak up. As Forester and Theckethil (2009) argue participation implies and enables actors to learn about each other, which is necessary in order to reach smooth decision-making. Further the power relations can also imply the NGOs having more power than the citizens themselves since they are providing the solutions. That could increase a resistant behavior of the citizens since they could think they do not have a say. Smith states to reach DD it needs inclusiveness and an unconstrained dialogue, which can lead to an active engagement of the citizens (Smith 2003). As seen in the results this has partly been accomplished by a few NGOs (e.g. NWS) but not all of them specifically tried to minimize power relations and aim for more participation through e.g. creating specific women groups in order to improve the processes. In order to balance power relations Smith's (2003) suggestion of an unconstrained dialogue could be a starting point for decision-making processes.

The second criterion *uncertainty avoidance*, where members of one culture feel threatened through uncertain or unknown situations, can be applied to a situation that the founder of SuSanA described. He explained that during a project where they implemented dry toilets in China, the reactions of some Chinese citizens were quite negative towards the new toilets and they tried to destroy them and threw waste into them (Interview 6, SuSanA: 56). This behavior shows that those Chinese people could not deal with the new and unknown situation. They showed their emotions in an aggressive behavior when they destroyed the new sanitation solution, which implies that the uncertain avoidance level is quite high in this case and those people avoid the uncertain situation. Here the subcategories *wrong understanding* and *transparency* could be important since both could

lead to the resistant behavior of the Chinese citizens. Another more harmless example happened in Sri Lanka where the citizens had to be relocated after the Tsunami and because of too little space they moved to a low line area that got flooded with two or three meters of water each year. The people used to have flush toilets before SuSanA came and built dry toilets for them. The flushed toilets were under water during the rainy season and had to scoop out the water. According to SuSanA the dry toilets were the perfect solution in this situation but the citizens refused to use those dry toilets because they were “primitive”, they “could see the feces” and that is “what their grandfathers used to do” (Interview 6, SuSanA: 54). This example shows another form of *uncertainty avoidance* where people showed resistant behavior. Also it seems that there was no real dialogue and the people, even if it is the best solution, might have had no choice in deciding about the toilets. A deliberative democracy approach where the citizens and the NGO would have had a dialogue with equal participation from all sides (Smith 2003) and a higher flow of information (Langergraber & Muellegger 2005) to create understanding and a common sense could have improved the situation.

*Individualism vs. collectivism*, the third criterion, looks at how integrated individuals are into groups and if individuals have loose relations in society or if people live in society with unquestioning loyalty (Hofstede 2005: 76). This criterion is more difficult to apply to the experiences of the interviewed organizations. One example where individualism can be seen a bit stronger than in others is in the cast system in India, where people in the lowest cast are called ‘the untouchables’ and are totally excluded from society because they deal or dealt with feces in the past times and it is forbidden to touch feces in India by law, as it was mentioned before (Interview 1, NWS: 4; Interview 6, SuSanA: 60). That makes the whole sanitation approach a lot more difficult but also shows when looking at the whole country and society that individualism is more existing than maybe collectivism. Collectivism can then only be seen in some families and particular communities through showing an unquestionable loyalty. But that might also have its limits when looking at other aspects as gender or power relations. Regarding the DD approach collectivism would be the form that is more needed for participatory discussions where everyone is equally involved and mutual understanding is created (Smith 2003).

Within the fourth dimension, *masculinity and femininity*, different gender roles are examined. That is an aspect that was present and occurred in cases of five interviewees and seemed not only important to consider but also to be an initial aspect that led to different cultural but also political problems and obstacles. Therefore the category gender can be found in the investigation as well and appeared in the results.

Several interviewees explained that sanitation is more important to women and they have a higher need for it because they are otherwise even more vulnerable that they already are (Interview 4, Peepoole: 36; Interview 6 SuSanA: 56). Also the request for better sanitary provision or basic sanitation came in several projects from women (Interview 4, Peepoole: 36). Due to negative consequences of lacking sanitation such as sexual harassment of women (Interview 4, Peepoole: 36), they have a higher need for protection (Interview 1, NWS: 11) and are often in situations where they cannot act (Interview 5, GWP: 48). Moreover if there is no sufficient access to sanitation services e.g. at schools, the young girls would after a time or latest when they start getting their menstruation stop going to school because of missing services. It indicates the importance of sanitation especially for girls and women and further demonstrates the high value of gender roles in that topic. Therefore gender roles and equality or in this case inequality needs to have a big emphasis within sanitation and when dealing with sanitation solutions. Sanitation for women also includes menstrual hygiene management (Interview 2, Viva con Agua 22; Interview 6, SuSanA: 56), which can be seen in relation with the general taboo about sanitation in some countries. As stated earlier the taboo exists because girls would stop their school attendance if sanitation services were not sufficient and they are ashamed and feel uncomfortable in school (Interview 1, NWS: 7; Interview 2, Viva con Agua: 22). That can be taken to a more general view on how girls have to behave when they got their menstruation according to societal norms and that it is not common to talk about that. Those examples show the huge difference between men and women, masculinity and femininity in the topic of sanitation that is partly biological but to a larger extent those are cultural and social differences in terms of diverse norms and decisions that are taken depending on the sex of an individual. But the difference and the roles of women are changing since the approach for help comes often from women. Also women play an important role in sanitation because they take on responsibility in e.g. water committees. The roles are still traditional but now it is on a different level (Interview 2, Viva con Agua: 22) due to increasing responsibility for women, which leads to positive positioning. Also the specific jobs in the water committees might then increase participation and could enhance decision-making processes in future. Regarding this the role of women can further develop and their responsibility could increase, which could then lead to a smaller degree of disparity between men and women. On the other hand that aspect needs to be considered when thinking about people

being resistant towards new sanitation. Resistance might here not come from women but could mostly come from men since they do not see the need for toilets for themselves and they are not in danger when they do open defecation e.g. during nights. This depends on the decisions and actions that are taken. Therefore the sanitation approach for men needs to be different and it could be useful to use other reasons to make them understand that basic sanitations, especially sustainable sanitation has not only advantages for their families, wives but also e.g. for their farming. Keeping in mind the still existing power relations men have to be convinced from the advantages of sanitary provision as well, if not at first. Regarding DD it is important to consider the gender aspect in order to reach equal participatory discussions and dialogues in order to reach better decision-making processes. In those examples women need to be included and as e.g. NWS did, women discussion groups can be created to avoid just including men and to balance the division of men and women in decision-making.

*Long-term and short-term orientation* with values such as perseverance of having a sense of shame for the first and values as respect for tradition, personal steadiness and stability for the latter orientation can partly be applied to this research. In some cases the interviewees reported about citizens e.g. in China where SuSanA did a dry toilet project and some citizens tried to destroy the toilets throwing solid waste into them (Interview 6, SuSanA: 56). In another example Indian villagers first used their new-implemented dry toilets but then stopped after some years (Interview 1, NWS: 14). Both examples show a short-term orientation in the behavior of the citizens, even though the organizations themselves aim for a long-term orientation in their sanitation solutions and also for a sustainable usage of the citizens. But after conducting the interviews it became clear that a long-term orientation and using the different solutions (dry toilets or the sanitation bags) on a sustainable basis is a general goal of all different organizations and is not always so easy to implement. The two examples where citizens rather act in a short-term and resistant towards change, emphasizes the importance of the NGOs to continue their work and that reaching the goal of sustainable sanitation is a continuous process, that also includes maintenance and reparations of the products even years after the project completion (Interview 1, NWS: 9; Interview 2, Viva con Agua: 24). The last dimension, *indulgence vs. restraint* was not the focus in this research and was not taken into account.

Finally both theories can be connected towards each other as well. In order to achieve successful and smooth decision-making processes within water and sanitation projects, the cultural background needs to be taken into account as well, including the different aspects that are explained earlier (e.g. language, gender, power relations) in order to achieve smooth decision-making processes with equal participation (Smith 2003).

## 8 Discussion

After the analysis most subcategories were found in the third main category: political obstacles. Against early expectations that the most important aspect that needs to be changed in order to succeed with sustainable sanitation projects would only lie within overcoming the cultural obstacles, another perspective comes into pictures as well. Change is not only needed at the ground, meaning by the people and their cultural norms, but first of all it needs to start at the top, by the government at a political level. The third category, political obstacles proved that with several subcategories. There are a lot of obstacles and challenges on the political level, at the governmental level, in decision-making and participation that also include resistance from the citizens. The resistance is also connected to cultural obstacles including the sanitation taboo and transparency, which leads to people showing resistant behavior and e.g. even destroying sanitation solutions provided by the NGOs. Therefore a change at governmental level is needed in order to change and also to improve the cultural obstacles between the NGOs, citizens and local organizations. A change on a governmental level is one important step to achieve a positive, long-lasting and sustainable change in sanitation. This also includes that the NGOs need to change in order to achieve the change, the organizations do not only need to approach citizens and other local organizations but also the governments. The approach of NGOs need to change as well and not also providing a space for discussions and decision-making among the citizens but also among citizens and NGOs to give them a choice. After presenting the results the research questions can now be answered.

- What obstacles, especially what resistance do NGOs face when they are communicating about water and sanitation facility solutions with citizens in developing countries?

The obstacles and resistance that NGOs can face when they communicate about water and sanitation solutions were already explained in detail earlier. There are different obstacles, cultural, economic and political obstacles (see chapter 6) that all include or lead to resistant behavior of the citizens towards sanitation solutions. Even though the general impression of the NGOs was mostly positive towards their projects and how the citizens in those villages where the NGOs acted, it still cannot be denied that others acted resistant and neglected the new solutions due to several earlier explained reasons. E.g. the dry toilets were not equivalent to their standards, but being “primitive” or people did not want to deal with their own feces, especially not seeing or touching them. A lot of steps are still needed in order to break the taboo, which also has to do with the support and prioritizing of the local government in affected countries. As explained earlier the political obstacles are amongst the most important ones that need to be solved or at least improved in order to change the sanitation crisis. The citizens need to be taken into account when international and national organizations and governments make decisions about future sanitary provision. Regardless of gender, people need to understand why sanitation services are so important for them and what advantages they will gain from stopping open defecation and using the alternatives instead. Advantages for their families, for women, girls and children and also for farming need to be made clear for them in order to achieve a long lasting use of the sanitation services and to change people’s behavior on a long run. But that has to start with the government and politicians, especially in countries as India, who have to understand the importance of appropriate sanitation. The process will take years until people open up and are not afraid or ashamed to talk about sanitation and feces anymore as the work of NGOs shows.

Regarding the UN SDGs 2030 it is only to hope that a first step towards change and awareness raising about the water and sanitation situation worldwide is done and that more and more governments will actually take the Global Goals into account and put sanitation as a human’s basic need as their priorities. Also as one interviewee (Interview 6, SuSanA: 57) already suggested this can only be achieved through a dialogue between the people. People need to start to communicate more about the topic, that does not only mean people in developing countries without basic sanitation but also people from the Western countries to be a model for others to create common sense and mutual understanding.

- How do decision-making processes between NGOs, citizens and governments facilitate deliberation and implementation of sanitation services?

The decision-making processes among the representatives of the six organizations differed depending on each project and the NGO implementing it. As explained earlier there are big differences between men and women

that also represent different power structures since the women were in one case the ones requesting sanitation services but usually men were the ones deciding on if they would get the facilities (Interview 4, Peepoople: 36). Especially in African countries men had more power than women since they had jobs where they would earn money and they could decide what they would buy from that money, whereas women were mostly responsible for collecting water (Interview 4, Peepoople: 36). There are still leadership villages in Africa where mainly men get involved in the decision-making, which shows that not all policies are gender-mainstreamed and the weaker members of society are excluded from decision-making processes (Interview 6, SuSanA: 56). Those roles are slowly changing when more women get responsibility in the water committees and would also make money with that (Interview 2, Viva con Agua: 22). In other countries such as India men still have roles as village leaders and only their wives had more responsibility, were more open and not as shy as other women in the village (Interview 1, NWS: 11). So the differences are still visible and power is not equally balanced. Even though the NGO working in India used equal participation among all villagers and had specific women meetings where the women could utter their opinions about sanitation and sensitive topics as menstrual hygiene management (Interview 1, NWS: 8). Generally it is noticeable that decision-making processes cannot be generalized throughout all countries and it is not common that everyone has a say and can express their opinions (Smith 2003). There are still big differences between men and women. Finally those processes that happen between NGOs and local actors (citizens, local organizations, government) do not happen with the approach of deliberative democracy. Power imbalances are recognizable and even though individual NGOs try to use a deliberative democracy approach through including all participants and creating opportunities and circumstances that everyone in the village can express their view and feelings about the new sanitation solutions (Smith 2003; Forester & Theckethil 2009), it does not mean that decision-making processes are always the same or comparable. Mostly decisions are made within the international NGO and a local organization and then in some occasions also with powerful villagers (mostly men).

Resulting from both research questions it occurred that none of the examined NGOs actually detected resistant behavior themselves or tagged it as resistance. The theoretical concept of resistance can still be recognized in different cases, from the citizens but also from local politicians when they are not prioritizing the topic of sanitation enough. Also investors and local NGOs showed resistant behavior. Moreover NGOs might also be resistant towards trying to understand the others' perspectives, e.g. the citizens. In order to achieve successful sanitation and smooth decision-making processes several steps are needed. Regardless from the aspects that were mentioned before that the cultural and political obstacles need to be taken into account and that the government of affected countries needs to take action and support the distribution of basic sanitation throughout the country as well as having basic sanitation as a priority, another factor is also important. Dialogue is the one aspect that has to be implemented through the different authorities. Dialogue between the government and residents as well as a dialogue between the government and NGOs. Lastly the NGOs should have a dialogue with the residents as well about their ideas and plan how to implement sanitation. Dialogue is so important to create common sense and mutual understanding between the different actors (NGOs, citizens, the governments). Giving enough information and a good argumentation and reasoning for sanitary provision that includes consequences of a lack of sanitation as well as positive consequences that result from appropriate sanitation facilities will lead to mutual understanding among the actors. That means that the reasons and advantages need to be clarified to citizens and the local governments in order for them to actually implement sanitation. This also means that all participants should be given a voice and they should have the chance to express their opinions, doubts and fears on sanitation. People need to be given a voice, which doesn't just mean the right to speak but voice means the "enunciation and the acknowledgement of the obligations and anxieties of living in community with others (Watts 2001: 180)" (Peeples & Depoe 2014: 1). "Finally, as environmental decisions are always contested and often contentious, voice is the currency of environmental struggle" (ibid.: 2). This quote emphasizes the importance of aiming for deliberative democracy also within the sanitation crisis. Moreover it is necessary in order to e.g. change or repeal laws for instance in India where it is prohibited by law to have physical contact with human feces and the handling with human waste before its treatment (Elledge 2013), which is difficult concerning alternative sanitation solutions where this handling and contact might be necessary. To avoid and change those developments dialogue is needed, also on a global level to create an international exchange of knowledge and experiences.

Looking at the results and this research it is also important to say that the method has its limitations since qualitative research can often be seen as too subjective and impressionistic. This is due to an open-ended start of the research, which leads the researcher to narrowing down the research questions and problem (Bry-

man 2012). In contrast to quantitative studies it is difficult to replicate qualitative research. More research and a bigger sample of organizations are needed to gain more specific information and to be able to generalize the results. But the choice of qualitative research was considered carefully due to its advantages that were already mentioned before, such as gaining a deeper understanding of a situation (Bryman 2012).

Since one possible way to improve the sanitation situation is creating an open dialogue between all stakeholders that implies not only communicating with each other but also to listen and trying to understand the counterpart (Forester & Theckethil 2009) in order to break the taboo and to raise awareness around the topic, there is more research needed about the concept of dialogue regarding the water and sanitation problem. To find consensus and mutual understanding within sanitation solutions that is one aim of deliberative democracy (Smith 2003) can be difficult since all stakeholders have different interests and therefore might think of different solutions. Here, environmental communication can play an important role in facilitating those discussions including all actors to change the sanitation coverage and usage worldwide.



## 9 Conclusion

The research has shown that water and sanitation is a very sensitive topic. It also showed that it is not only a topic in developing countries where basic sanitation is missing. However, people do not communicate enough about sanitation in each of the areas, which hinders future improvements on all levels. How and especially why should the people living in developing countries want to use dry toilets, which is more sustainable and more appropriate for their living situation, when people in Western countries that seem to live a better life also only use flush toilets? Sanitation coverage is one problem. But when that is achieved who ensures that the people also use the alternatives? So when the sanitation coverage problem has been solved in some years time, the much more interesting part is to get people change their behavior and to actually use the dry toilets or sanitation bags on a long run. Also it is not said that the existing solutions are already the best possible ones for the citizens. There might be other solutions that are changing people's resistance and resulting in more positive reactions and a more sustainable usage. The sustainable usage is what some NGOs already struggle with and try to achieve through local partners, organizations, employees and citizens that take an active role in maintaining and repairing the toilets. In African countries, e.g. Kenya and Uganda (Peepoople, VcA) that seems to work, whereas people in India still struggle with the law that prohibits the people to actually deal with their feces since it is historically connected.

Therefore communication is needed on many levels, on a cultural but especially on a political level. Also it emphasizes the importance for environmental communication within sanitation because environmental communication aims to understand both, the environment as well as the relationships towards it (Cox 2010), which is important to consider when thinking of the consequences for the environment and the human beings of missing sanitation. In this research the aim was to understand why people and citizens act towards organizations and an environmental problems the way they do and what different communication processes occur during those processes (Cox 2010). This brings me to my concluding remarks that sanitation is still seen as a sensitive topic and it needs more awareness-raising activities to get people to understand the importance and consequences of sanitation globally. In order to achieve meaningful progresses and impacts within the water and sanitation problem the governments' priorities needs to emphasize the importance as well. More educational campaigns need to be developed and implemented as well by NGOs for a sustainable change.

Since this research just investigated six different organizations, the results represent a small sample and cannot be generalized. The investigation of many other organizations is necessary to gain more data and to be able to generalize the results. Therefore more research is needed and important to get a deeper understanding of the water and sanitation crisis. Moreover this research is limited in terms of focusing on the NGOs' perspectives. In order to gain a broader view of the situation, other stakeholders as the citizens themselves or representatives of the political level should be involved and examined as well. Another topic that can be investigated afterwards in more detail is the behavior and values of the citizens. More important to investigate is how the taboo can be overcome better in order to achieve a change in the sanitation field.

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# Appendix 1

## Interview Catalogue

Topics	Main Questions	Additional Questions	Clarifying Questions
<b>Introduction</b> <ul style="list-style-type: none"> <li>Present yourself</li> </ul>	<ul style="list-style-type: none"> <li>Who are you?</li> <li>What do you do?</li> </ul>	<ul style="list-style-type: none"> <li>What are aims, goals and missions of your NGO?</li> </ul>	<ul style="list-style-type: none"> <li>Aims &amp; goals of the NGO</li> </ul>
<b>Work &amp; Projects</b>	<ul style="list-style-type: none"> <li>What projects do you do?</li> <li>Projects?</li> <li>How did you start &amp; approach first projects?</li> <li>What reactions did you get?</li> </ul>	<ul style="list-style-type: none"> <li>When &amp; how did it start?</li> <li>Why is it important?</li> </ul>	<ul style="list-style-type: none"> <li>What did you do to start it? Could you give examples?</li> </ul>
<b>Preparations</b> <ul style="list-style-type: none"> <li>Communication of projects</li> <li>Expectations</li> </ul>	<ul style="list-style-type: none"> <li>How did you communicate project &amp; ideas?</li> <li>How did you approach stakeholders?</li> <li>How did you communicate with people there?</li> <li>What were your expectations?</li> <li>What else/other things were important for the NGO to think about before?</li> </ul>	<ul style="list-style-type: none"> <li>Did you use any strategies?</li> <li>Did you have partners/stakeholders? → How did you find them?</li> <li>Were expectations for a project met or not?</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders = in country &amp; in other countries</li> </ul>
<b>Difficulties</b> <ul style="list-style-type: none"> <li>In decision-making processes</li> </ul>	<ul style="list-style-type: none"> <li>Did you face any difficulties (problems/obstacles)? What exactly?</li> <li>How did decision-making take place? What obstacles did you face in decision-making processes?</li> <li>What about gender differences?</li> <li>What about power relations?</li> <li>In what way did you think about ethical behavior? What did you do?</li> </ul>	<ul style="list-style-type: none"> <li>Difficulties in going to another country, talking &amp; negotiating with people there</li> <li>How did you make decisions? Who made decisions? What difficulties/problems occurred during decision-making processes?</li> </ul>	<ul style="list-style-type: none"> <li>Decisions about e.g. building dry-toilets or wells</li> <li>Examples?</li> </ul>
<b>Reactions of citizens</b> <ul style="list-style-type: none"> <li>positive/ negative?</li> </ul>	<ul style="list-style-type: none"> <li>Did you experience any negative emotions/reactions from the citizens? When and in what way?</li> <li>Or were people always happy?</li> <li>What reactions did you experience/face?</li> </ul>	<ul style="list-style-type: none"> <li>What reactions did you experience in decision-making processes?</li> <li>How could it have been improved?</li> </ul>	<ul style="list-style-type: none"> <li>Can you expand a bit?</li> <li>Can you give me examples?</li> </ul>

<p><b>Intercultural Communication</b></p> <ul style="list-style-type: none"> <li>• Power distance</li> <li>• Uncertainty Avoidance</li> <li>• Individualism vs. Collectivism</li> <li>• Masculinity vs. Femininity</li> <li>• Temporal orientation vs. long-term</li> <li>• Indulgence vs. restraint</li> </ul>	<ul style="list-style-type: none"> <li>• What about cultural/intercultural differences?</li> <li>• How did you recognize them?</li> <li>• What did you do about cultural differences? How did you deal with them?</li> <li>• What else happened you weren't expecting?</li> <li>• Who solved or slackened the situation?</li> </ul>	<ul style="list-style-type: none"> <li>• Any cultural conflicts/problems?</li> <li>• What happened?</li> <li>• Any preparations?</li> <li>• Misunderstandings? Miscommunication?</li> <li>• How did you deal with it? And when?</li> <li>• People offended?</li> </ul>	<ul style="list-style-type: none"> <li>• Could you give some examples?</li> </ul>
<p><b>After Project Implementation</b></p>	<ul style="list-style-type: none"> <li>• What happened after the implementation?</li> <li>• Do you know if people actually use the products? How do you know about it?</li> </ul>	<ul style="list-style-type: none"> <li>• How did you achieve people using it?</li> </ul>	<ul style="list-style-type: none"> <li>• E.g. dry toilets: men still like to go to the open fields, open defecation</li> <li>• Could you expand and give examples?</li> </ul>
<p><b>Conclusion</b></p>	<ul style="list-style-type: none"> <li>• What feelings do you have after the project?</li> <li>• What could you have done more, differently or better?</li> <li>• Anything to add?</li> </ul>	<ul style="list-style-type: none"> <li>• Positive/ negative feelings</li> <li>• Any regrets so to say?</li> </ul>	<ul style="list-style-type: none"> <li>• Could you tell me a bit more?</li> </ul>

# Appendix 2

## Themes and Categories

### Themes

1. Marketing
2. Collaboration
3. Obstacles
4. Finances
5. Reactions
6. (Consequences)
7. Expectations
8. Reputation
9. Taboo
10. Education & Training
11. Locals (local people/employees)
12. Requirements (for a successful project)
13. Vision & Goal
14. Communication
15. Culture
16. Request for Help
17. Decision-making
18. Gender
19. Participation
20. Power relations
21. Government
22. After Project Completion
23. Behavior Change
24. Hygiene Revolution/History
25. Technological Obstacles
26. Strategy (for successful project)
27. Support
28. Usage
29. Resistance

### Categories

#### Head Category:

- **Resistance and Obstacles**

#### Main categories:

- Cultural Obstacles
- Economic Obstacles
- Political Obstacles

**Sub-categories:**

- Finances
- Taboo
- Decision-Making
- Gender
- Participation
- Power Relations
- Government
- Behavior, Values, Norms
- Technology
- Resistance
- No open Communication
- Wrong understanding

<b>Resistance and Obstacles</b>		
<b>Cultural</b>	<b>Economical</b>	<b>Political</b>
Taboo	Finances	Government
Behavior, Values, Norms	Technology	Power Relations
Gender		Decision-Making
Language		Participation
		Resistance
		No open Communication
		Wrong Understanding

Table 2. Category overview (own presentation).