



Exploring participation: Waste management cases in two *favelas* of Rio de Janeiro

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ABSTRACT

Santa Marta and Vigario Geral are the two *favelas* (squatter settlements) of the roughly 600 *favelas* in Rio de Janeiro. While not being the poorest of the poor, the *favelas* are still suffering from precarious services and lack of infrastructure. Waste is one of the visual measures of existing inequalities in Rio de Janeiro. Approximately 20% of the *favela* dwellers suffer from precarious and substandard waste management systems (IPLANRIO, 1997). As a result of the low capacity of the public authorities to provide proper service together with the unmotivation of the *favela* residents' association to carry out local waste management and citizens' lack of cooperation, waste ends up accumulating in peoples' immediate living environment. This contributes to residents' vulnerability to environmental and social shocks and stresses. It is argued that there is a need for a holistic, people-centered approach to solving these problems (UN-Habitat, 2003). Public participation is one of the most important livelihood strategies in contributing to sustainability, efficiency and effectiveness of the waste management system. Moreover, participation and sound waste management can promote empowerment, improved health and sustain important physical assets. However, there is a gap between participation theory and practice. In practice, participation often does not work, which hinders achieving sustainability of the waste management. This paper aims, based on the study of the two aforementioned *favelas*, to gain a holistic understanding of participation in waste management. Theoretical and practical aspects of participation within a framework of the relationship of actor and structure are explored. Based on the information from interviews with the *favela* dwellers, municipality officials and NGO workers, from personal observations as well as from the/literature study it can be concluded that participation is influenced by actors' own personal lived experiences as well as wider enabling and constraining structural factors. It is recognised that communities are heterogeneous, and therefore there is no one solution that can tackle the waste problems. Ignoring local differences may disempower those who are supposed to be empowered. It should also be recognised that participation alone is not a panacea for achieving sustainable waste management. Participation requires continuous work through awareness raising and capacity building. Moreover, a broad-based partnership between different actors is needed in order to secure sustainability of the waste management systems.

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GLOSSARY AND ABBREVIATIONS

<u>CLD</u>	Causal Loop Diagram
<u>CBO</u>	Community Based Organisation
<u>COMLURB</u>	A Companhia Municipal de Limpeza Urbana (Municipal Urban Cleaning Company in Rio de Janeiro)
<u>Gari Comunitaria</u>	Community waste picker
<u>Grupo Eco</u>	CBO in Santa Marta
<u>Favela</u>	Highly concentrated self-constructed residential areas on invaded public or private land that suffer from lack of infrastructure and limited or substandard access to basic urban services (UN-Habitat, 2003). (Can be called squatter settlements or slums).
<u>Favela Bairro</u>	<i>Favela</i> upgrading programme “that was launched by Municipal Government of Rio de Janeiro in 1994 in order to provide necessary conditions for <i>favelas</i> that would enable <i>favelas</i> to be seen as neighbourhoods of the city” (Riley et al, 2001, p521).
<u>IBASE</u>	Instituto Brasileiro de Análises Sociais e Econômicas (Brazilian Institute of Social and Economic Analyses)
<u>IBISS</u>	Instituto Brasileiro de Inovações em Saúde Social (Brazilian Institute of Innovations in Social Health)
<u>Mutirao</u>	Self-help project
<u>Onda Azul</u>	NGO in Rio working with social-environmental projects, leading recycling project in the <i>favela</i> Vigario Geral
<u>UN-HABITAT</u>	United Nations Human Settlement Programme

I INTRODUCTION

Until some decades ago, development studies have paid little attention to urban problems, such as poverty and social differentiation. Urban problems were assumed to disappear in the process of modernisation. On the contrary, the informal settlements as evidence of social disadvantage did not show signs of disappearing but rather grew in some cities. (Beall, 2000) Today almost 1 billion people in the world live in slums, most of them in the so-called developing countries. Urban poverty is on the top of the international development agenda. It is reflected in the special target on slums in United Nations Millennium Declaration. The aim is to substantially improve the lives of the 100 million slum inhabitants by 2020. This requires, among other things addressing the lack of basic services and the insecurity of tenure. (UN-Habitat, 2003) The recently launched Global Report on Human Settlements calls for going beyond the conventional approach of addressing only physical improvements, such as infrastructure and physical environmental conditions. Instead the emphasis should be on a holistic approach for understanding the lives of the slum dwellers. The Report draws attention to people's roles in improving their own living conditions and participating in decision-making as an end in itself and a means for achieving services that respond to the needs of the urban poor. An important base for it is good, inclusive and equitable urban governance, which requires broad-based partnership between the public authorities and the communities. (UN-Habitat, 2003)

Slums (*favelas* in Brazilian-Portuguese) in Brazil's largest urban centre like Rio de Janeiro and Sao Paulo, have been part of the city picture for more than a hundred years. In Rio de Janeiro there are approximately 600 slums, which accommodate 19% of the city population (DPU et al, 2003). These urban communities are experiencing socio-economic exclusion and social injustice in terms of access to basic urban services. Most of the slums are illegal, which means insecure tenure for their dwellers. (Xavier and Magalhaes, 2003). Among other basic service problems the *favelas* suffer from the sub-standard waste collection service and poor management of waste. As much as 20 percentages of the *favela* households have inadequate garbage collection (IPLANRIO, 1997). It is likely due to government inability or will to address the needs of the fast-growing *favelas*. Complicated topography, lack of infrastructure and violence in *favelas* are factors that restrict the municipal waste collector access to the community to carry out the collection. Unlike the people in the rest of the city, the *favela* habitants are living on marginal lands, on the hillsides or river plains, which are prone to landslides and flooding (Farrington et al, 2002). The housing is often poorly planned, which has resulted in extremely dense living conditions. Due to lack of infrastructure and low citizen collaboration, waste often remains accumulated on the slopes, in drainage channels and in forests. This means that the disadvantaged urban citizens are living in close contact with garbage. Uncollected and accumulated waste can contribute to an increased vulnerability to various shocks, such as landslides and diseases. This has the potential of further impact on poor communities putting their housing, health and employment at risk, all of which are essential assets for improving their lives. (Farrington et al, 2001)

Besides accountability of the municipality, popular participation is one important strategy for contributing to sustainability, efficiency and effectiveness of the waste management system. Participation at the community level and in decision-making can be understood as a livelihood strategy for decreasing vulnerability. However participation in waste management is not only significant for the

maintenance and smooth operation of the waste collection system but for the wider achievement of social, political, economic, physical and environmental sustainability. In other words, it contributes to improving environmental health, alleviating poverty, sustaining important physical assets and achieving empowerment. Waste collection in Rio *favelas* has been in place since the 1980-s (Oliveira et al, 1993). In 1996 a new project for tackling garbage in the slums was launched. The project was carried out in partnership with the *favela* residents' association. Local manpower was employed for carrying out the daily service.

However in practice participation does not always work. This hinders achieving sustainable waste management, and through that, long-term sustainability. Participation has many contradictions between theory and practice. Participation theories embrace romantic beliefs about homogeneous community and that people will participate when they have been given the opportunity to do so, either out of interest for community development or because they see self-benefit from it (Cleaver, 2001). A client-patron relationship is still living its life in Brazil, especially in Rio de Janeiro (Gay, 1990). Hiring local people for implementing services legitimise government policies go under the name of participation. In general participatory approaches could occur to be manipulative tools in the hands of strong decision-makers, harming the people who were supposed to be empowered. (Cooke and Kothari, 2001)

The aim of this research is to investigate the theoretical and practical aspects of participation within the framework of actor and structure relationship in order to gain an in-depth understanding of participation as a livelihood strategy for increasing sustainability of waste management. It is recognised that *favela* dwellers are knowledgeable and capable actors in directing the development of their own lives. There is need to gain an understanding how people in different contexts relate to participation and how the structures in which they are embedded influence their actions. Wider structural factors, such as policies and institutions, are playing an important role in enabling or constraining local livelihood strategies. By studying two *favelas* and exploring the perceptions of the different actors, such as *favela* residents, community leaders, municipality officials and NGO workers this study gains insight into the models of individual action and the factors it is influenced by.

II BACKGROUND

2.1 Nature and politics of favelas

This study has been carried out in the second largest city in Brazil, Rio de Janeiro. Squatter settlements, in Brazilian-Portuguese '*favelas*', are the focus of this research. *Favelas* are characterised as highly concentrated self-constructed residential areas on invaded public or private land. These areas suffer from a lack of infrastructure and limited or substandard access to basic urban services. Most of them are illegal, which means insecure tenure for the inhabitants. (UN-HABITAT, 2003) The world's vision of Rio de Janeiro is of a tropical entertainment paradise, a city surrounded by sandy beaches and the sea. However, the reality is rather different. The paradise known all over the world is just a tiny part of a bigger picture. The majority of the city areas, especially suburbs, are very poor and under-serviced (Gay, 1994). Brazil, in general has problems with unequal wealth distribution, social inequality and serious poverty (Pamuk et al, 1998). According to Pamuk et al (1998) inequality in wealth distribution is especially visible in Rio de Janeiro and Sao Paulo, where the economic opportunities are concentrated and the most densely populated *favelas* of Brazil are located. The

number of *favelas* has been growing during the last decades. In Rio de Janeiro more than 600 *favelas* were counted in 2003. In 2000 1 092 783 people were registered living in *favelas*, which is 19% of the total city population. (DPU et al, 2003)

Being called a *favela* means that such a place is ‘irregular’, ‘poor’, ‘disorganised’ and ‘dangerous’. In Brazilian-Portuguese there is a special term to identify *favela* residents: ‘*favelados*’ (Pamuk et al, 1998), which has a rather negative connotation. In the past, *favelas* have been considered ‘urban cancer’ of the city that should be eliminated. Many dualistic expressions are used to differentiate between the *favela* population and the rest of the city: ‘divided city’, ‘the hill’ versus ‘asphalt’. All these images related to *favela*, hide their diversity and richness.

2.1.1 Exclusion and social injustice

Living circumstances in Rio *favelas* are characterised by cultural, physical and social exclusion (Riley et al, 2001). Many of the *favela* inhabitants are living in conditions where there is no proper access to services and in unsuitable areas such as slopes, swamplands and riverbanks. The following Table 1 shows how the living conditions in *favelas* are worse than in the regular city.

Table 1: Comparison of selected characteristics of *favela* and non-*favela* residents

Characteristics of residents/Dwelling units	Favelas	City-wide
Percent of household heads with less than 4 years of schooling	20.6	17.2
Percent of household heads with 15 years or more of schooling	1.0	16.7
Percent of household heads with income over 10 minimum wages	0.6	15.1
Average income of household heads (in minimum wages)	1.7	5.8
Percent illiteracy of people over 15 years old	15.3	6.1
Percent of houses without proper water supply	15.4	3.9
Percent of houses with inadequate sewerage system	36.7	8.9
Percent of houses with inadequate garbage collection	21.3	4.3
Average number of rooms per household	4.1	4.8
Average number of persons per household	3.9	3.5

Source: IPLANRIO, 1997

The population of *favelas* constitutes informal workers, migrants and the poor class. However, in recent years, the part of the middle-class in the communities is increasing. Most of the population is employed in unskilled or semi-skilled jobs. (Gay, 1994)

Favelas in Rio de Janeiro provide shelter for armed gangs dealing with drugs. The armed conflicts between the drug gangs, police and rival gangs are a source of violence in *favelas*. The bandits are also romanticised as playing the role of Robin Hoods. They contribute to the welfare of the *favelas* in return for public support. (Gay, 1994) The control of the drug dealers in *favelas* has resulted in substituting the societal rules with their own rules and norms. A known norm in these settlements is the ‘*lei do silencio*’ (law of silence), which means that talking about certain things is not allowed. (Taschner, 2003) *Favela* citizens suffer from this violence. The drug-dealers reinforce the negative image of the community, resulting in further exclusion from society.

2.1.2 Public policies towards *favelas* and *favela* popular movement

The relationship between the state and the *favelas* is inherited from the dictatorship era. It follows the populist and clientelist pattern (Gay, 1994). Until some decades ago the government policy was to eradicate *favelas*. It was successful in removing many of them but the squatter settlements responded with a broad popular movement against the strategy. In the 1970-s a popular protest movement emerged with *favela* residents' associations in the front to demand access to basic rights such as water, electricity, sanitation infrastructure and land tenure (Riley et al, 2001). At that time many of the construction projects were done with the communities' own initiatives and resources. Often, help was received from external sources such as the Catholic Church, NGOs or public authorities, in the form of materials, money or technical support. The workforce was not paid. In the 1980's, public authorities established agreements with the *favela* residents' associations to employ local manpower for upgrading works and carrying out services. For the public authorities it was an economically interesting strategy for its low cost and opportunity to legitimatise its policies. (Oliveira et al, 1993)

In 1994 the *favela*-upgrading programme, *Favela Bairro*, was born. Its aim was to alleviate poverty by integrating the *favelas* socially and physically with the rest of the city. (Riley et al, 2001) This programme has been recognised in the international arena as a best-practice example of housing policy. It has been acknowledged for its innovativeness to integrate social dimension with conventional upgrading programmes. It has also revealed a commitment to multi-sectoral projects and land regularisation processes (UN-Habitat, 2003). Despite the improvements that *Favela Bairro* creates, it still lacks strong involvement from the communities (Riley et al, 2001). This and other initiatives, such as *Regularizacao fundiaria e titulacao* (Tenure Regularisation and Transfer of Titles) and the City Statute "Right to the city" are evidences that *favelas* are no more subject to removal but part of the city landscape.

Popular movements in Brazil gathered strength in the 1970-s and 1980-s as a protest against the military regime. The phenomenon of civic movements in Rio, according to Gay (1994), is especially interesting since it reached the most disadvantaged groups in society, the *favelas*. Although *favelas* suffer from social exclusion, their population has been very active and organised. Popular organisations have played a significant role in influencing the relationship between the urban poor and the political elite (Gay, 1994). The *favela* residents' association has been in front of these movements. Resisting removals, upgrading *favelas* and accessing basic rights have been the forces that have mobilised the communities. (Riley et al., 2001)

2.1.3 Waste management

As mentioned earlier in this chapter, one of the ways in which *favelas* differ from the rest of the city, is their poor access to waste collection services. The complicated topography, poor infrastructure and violence in the *favelas* make it very difficult to implement high-quality waste collection services. Most of the settlements have developed without any planning. Therefore, the structures are quite irregular; the streets are narrow, sometimes unpaved and hard to access by vehicles, making the collection challenging. The situation is more complicated in the case of hilly *favelas*.

Poor access to services and unsatisfactory living conditions make the *favela* dwellers vulnerable to various environmental shocks (see Figure 1). *Favelas* are located on the marginal lands, on the slopes, hillsides or by the rivers. Lack of collaboration by the local residents and improper waste management



Figure 1: Waste accumulating on the slopes in Santa Marta. This photo intends to emphasise the contrast between favela and the ‘regular’ city. Waste in favelas is one of the visual measures of existing inequalities in Rio de Janeiro. Photo taken by K. Lillemets

leads to the accumulation of garbage in the drainage channels, hillsides and forests. This creates favourable conditions for mosquito’s proliferation. As an example, the *Aedes* mosquito, vector for the dengue disease, breeds in small containers with still water. Due to poor local sanitation infrastructure, flies might come into contact with human faeces and contaminate the food. Accumulated waste in open land attracts rats, which enter the houses, especially the wooden ones, carrying the leptospirosis. (McGranahan et al, 1997) During the rainy season, waste accumulation can contribute to landslides, which can lead to the collapse of houses, leaving the vulnerable without shelter.

To tackle the problem, in 1996 the municipal waste collection company, Comlurb, introduced a project called *Favela Limpa* with the aim to start a more organised waste collection system. The Project co-operates with the *favela* residents’ association, who hires waste collectors from the community. The motivation behind the project is to employ local residents, creating employment. Moreover, hiring the locals is expected to improve the quality of the service since the *favela* citizens are assumed to not have problems with access, they are presumed to be motivated to keep their community clean, they know their neighbours and the critical points where waste gets accumulated. The waste pickers provide door-to-door collection, by picking the waste bags from the

doorways certain days and hours and bringing the waste to common collection points where the municipal truck picks it up. The additional role of the waste pickers (*Gari Comunitaria*) is to educate the *favela* dwellers about the risk created by garbage. The administrative work is done by the local resident organisation. Although the project has resulted in significant improvements, waste is still, in some communities, a highly visible problem.

2.1.4 About the selected *favelas*

In the following section I will provide a short background of the areas where the study was made. The criteria for selecting the two *favelas* will first be introduced.

Two *favelas* were chosen (see Figure 2) in collaboration with the non-governmental organisation IBISS who is working with a wide variety of issues in approximately 10 *favelas*. The main criterion for

choosing the *favelas* was the presence of waste related activities. One chosen *favela* was Santa Marta, which was favoured because of my familiarity with this community from the times of voluntary work there. The other was Vigario Geral, where IBISS has done extensive community work. Santa Marta is a hilly *favela* in the South zone while Vigario Geral is a flat *favela* in the northern part of the town. Both of them have a waste collection service. In Vigario Geral, a recycling project has been going for three years already and in Santa Marta it is expected to start at the end of the year 2003. Although these communities are situated in different contexts, having different topographies, the purpose of the study is not to get into detailed comparisons. However, the context and topography will play an important role in understanding the aspects of public participation.

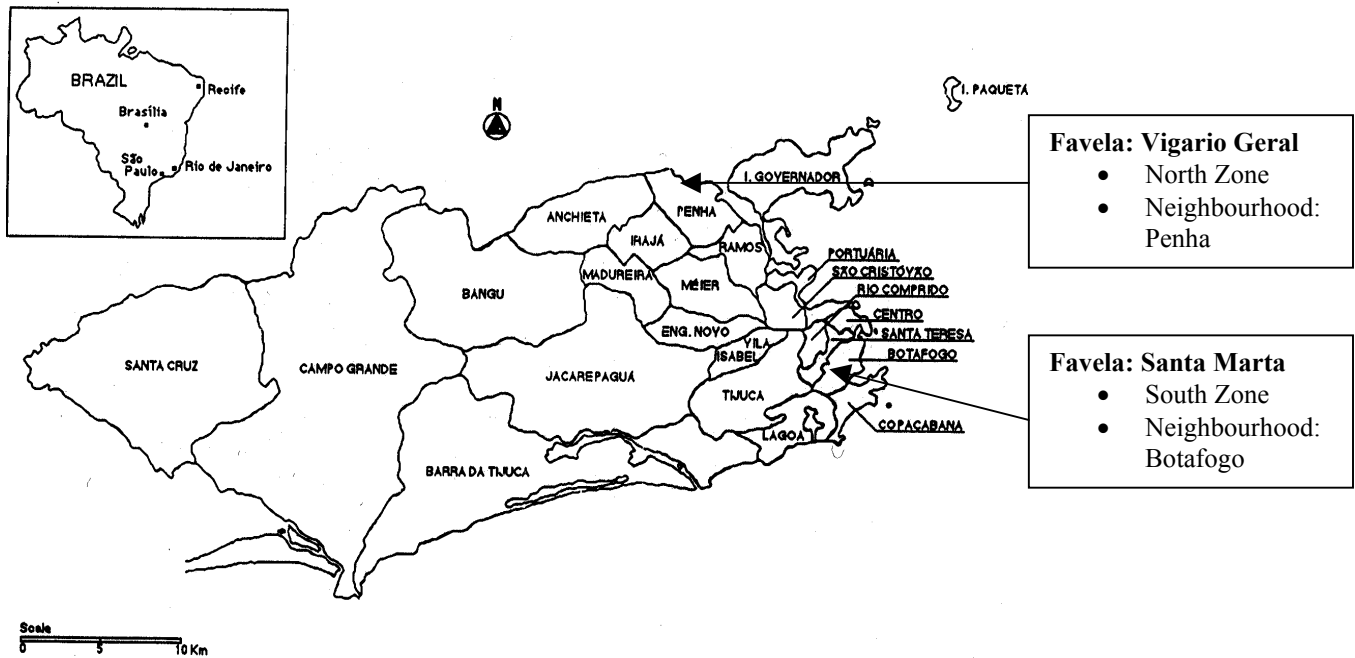
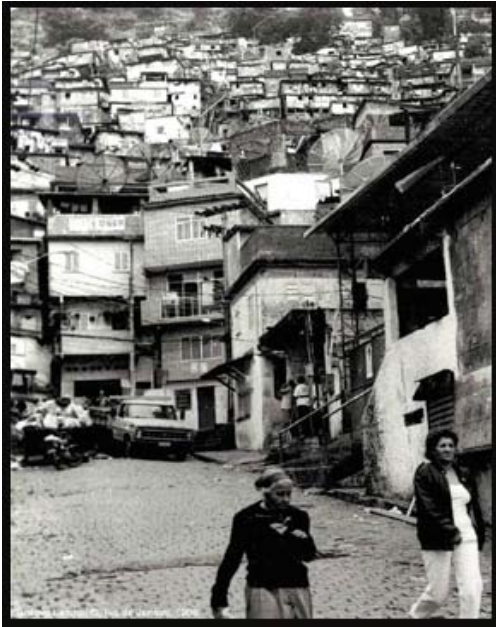


Figure 2: The Municipality of Rio de Janeiro with Inset of Brazil (Gay, 1994)

Santa Marta

Santa Marta can be considered a typical *favela* in the South region, right in the heart of middle or upper class neighbourhoods. This area is very different from other parts of the city, since it is both a commercial and tourist site, having the best natural resources, with beautiful beaches and mountains. It is the most expensive part of town along with a well-developed infrastructure, commerce, services and good transportation system. (Pamuk et al, 1998) In this sense, the *favelas* in the southern region are in a privileged situation. They benefit from living near the city centre, where the majority of jobs, hospitals, schools, supermarkets and schools can be found. The community has a hilly topography (see Figure 3). The official size of the population is about 5045 people (based on the 1996 census) (DPU et al, 2003). According to a local survey the number reaches 16000, which makes it one of the densest communities in Rio de Janeiro. This implies that the amount of garbage created per area is larger than in any other area.

A great part of the economically active population is unemployed or active in the informal sector, mainly in the service sector, working in hotels, pharmacies, cleaning and maintenance companies,



**Figure 3: Photo of Santa Marta
(Larcher, 1996)**

restaurants, and domestic services. Family income is around three minimum salaries. (DPU et al, 2003) It is important to mention that there is a correlation between the location of the family and the socio-economic conditions. There is also an ethnic division between the upper and lower parts of the hill. Since the lower part enjoys better access to the infrastructure and the city, it is valued higher and hence more densely populated. About 15% of the population is illiterate, however a few people have university education (Ibid.). The land does not belong to its citizens but instead to the Municipality. The houses are not registered in the Municipality but instead in the *favela* residents' association. As will be discussed later, access to legal tenure will play a significant role in understanding the dynamics of participation.

Santa Marta is very visible within neighbourhood where it is situated. It covers an area of 50000m² and is about 150 meters high. The *favela* is very steep and densely populated. The community has two points of access, at the top and at the bottom of the hill. (Saad, 1988) Santa Marta is one of the last *favelas* in the southern zone, which has not gone through the urbanisation project that would provide the *favela* with

infrastructure and improvement of houses. A majority of the houses are already made of bricks, but significant number of wooden houses can still be found, especially in the upper part of the community. There hardly exists any planning for the *favela* houses. Inside the *favela* people can move through stairs, ramps, steep straight and curvy paths, which are 0.60 to 1.30 meters wide allowing only pedestrians to pass. (DPU et al, 2003) No proper paved roads can be found in the upper parts. All these characteristics of the *favela* make it difficult to provide good quality public service. These structural characteristics also have an affect on popular participation.

The *favela* does not have proper sanitation system, or more precisely, there is a sanitation system in the lower part of the *favela*, but not in the upper part. Raw sewage runs in open ditches. The same sewage ditches serve as a superficial drainage system for rainwater and as a place to throw waste (see Figure 4). Entering the *favela*, the higher up you go the more you can see waste accumulating in the drains, and on the slopes, and in the forests. All kinds of waste are there: the remnants of old furniture and home appliances, waste paper and cardboard, hundreds of plastic bottles, bags and wrappings, old cans, and organic rubbish. Plastic bottles make up 30% of the waste. Aluminium cans are not found, as they are too valuable on the market to just throw away. Uncollected waste is a perfect ground for the proliferation of mosquitoes; and rats can be found roaming freely in the drains. This immediate image is a sign that the waste collection is irregular and the people's participation is low.



Figure 4: Picture - waste on the slopes
Photo taken by K. Lillemets

Santa Marta is characterised by numerous community organisations and active cultural life (Rocha, 2000). The history of Santa Marta has been full of fights against the removal and struggle for the urbanisation project. Most of the infrastructure and houses have been built with the community's own resources, through self-help projects (*mutirões*). However, there is hardly any sign of mobilisation for improving the waste situation. The local community organisation Grupo ECO and resident association have organised awareness raising campaigns a few times to call the residents to participate in the waste collection system.

Vigario Geral

Vigario Geral is the community situated in the suburb of northern zone, where there is a high concentration of industries. It is a flat *favela*, officially with about 7000 people. The community is divided from the rest of the neighbourhood by a wall about 9 meters high. There is no high school and hospital is far. The community is located by the river, which floods during heavy rains. The river has also been used as a waste dump. Children use the river to swim in the summer, exposing them to skin diseases and other health related issues. Two years ago the municipality started

the *Favela Bairro* project to upgrade the community, which resulted in physical improvements.

Nowadays Vigario Geral is an organised *favela* with various community groups. The movement of the community organisation started after community massacre that happened in 1993. The conflict between the police and the drug gang resulted in 21 deaths of innocent people (Ventura, 1994). The local civil society mobilised itself and many external agencies started development work in the community. The residents' association has long been related to drug dealers. The president has been appointed by the drug-dealers, not elected by the people, which have made it difficult to achieve legitimacy in the eyes of the people and to build good contact with government institutions. The Municipality has been organising proper waste collection system in the community since 1996. Waste collection in a flat *favela* is considerably easier in comparison to a hilly *favela*, where access is hampered by the topography. Non-governmental organisation started a recycling project three years ago to make armchairs from plastic PET bottles. The long-term aim of this project is to create a cooperative administered and managed by the local people. During the three years of existence, the project has had a positive awareness raising effect among the residents.

III RESEARCH OBJECTIVES AND QUESTIONS

The main objective of this research is to gain a holistic understanding of participation as a livelihood strategy for increasing sustainability of waste management in two *favelas* of Rio de Janeiro.

Having this objective in mind, the main research questions that will be explored are:

- What factors in *favela* setting affect people's participation in waste management and how?
- What factors determine the motivation/willingness to participate?
- How the people's perceptions about their community influence popular participation?
- To what extent are people vulnerable to shocks and stresses created by waste and how it influences their participation?
- What is the policy approach that the public authorities and the NGOs implement in *favelas* and what are the policy implications on public participation and waste management?

IV THEORETICAL FRAMEWORK

4.1 Interrelated actor and structure

Since the aim of this thesis is to gain a holistic understanding of participation as a livelihood strategy for increasing sustainability of waste management, the theoretical framework chosen for this study follows the principles of systems thinking. The idea of systems thinking is to create an understanding of the connections and interrelations between "components in a network of relationships". The basic concept of systems thinking is feedback, which means 'reciprocal flow of influence'; 'nothing flows in one direction'. (Spruill et al, 2001, p4)

Based on these principles, the analytical framework chosen for this study is the interrelationship of actor and structure. Long (2001) criticises structuralist development models that see social change as being determined by external powers, such as state and international agencies; and ignores the role of individual actors. According to him neither development theory nor practice has taken into account the heterogeneity of society or social change. Development projects have treated people as passive recipients, homogenous and without history. (Long, 2001) However human behaviour cannot be looked at only from the perspective of individual motives, intentions and interests (Haan, 2000). The choice and decisions made by the people are the result of lived experiences, interactions between the community members as well as the individuals and the contextual social, political, physical and economic systems where they are embedded. (Ibid) (Figure 5) Cleaver (1999) provides a following explanation, what the interrelationship of actor and structure mean. According to her the human actor has the ability to "process the experience and shape action" and the structure has the role of either enabling or constraining such choice (Cleaver, 1999, p607). Human actors have the power of agency, which as explained by Long (2001, p16) "attributes the individual actor the capacity to process social experience and to devise ways of coping with life, even under the most extreme forms of coercion." Besides, as he continues "actors are capable (even within severely restricted social and personal space) of processing (self-consciously or otherwise) their lived experiences and acting upon them." Long (2001) emphasises that human actors develop multiple strategies or approaches under the same or

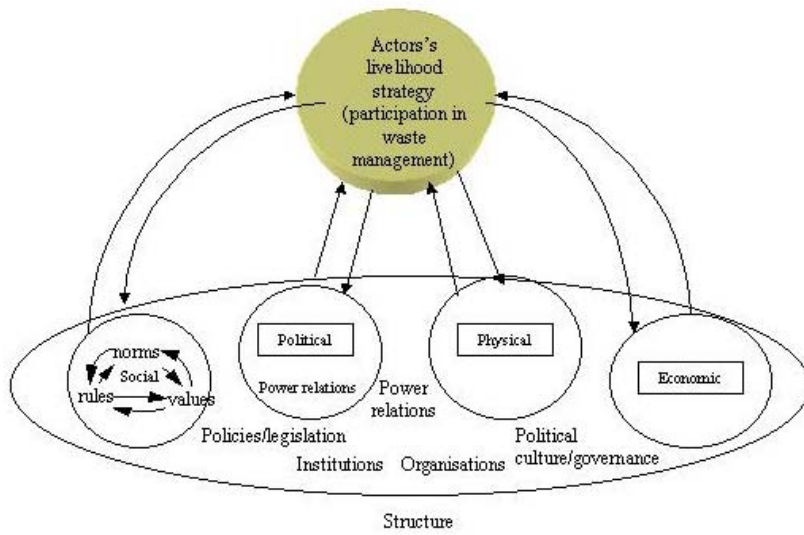


Figure 5: Interrelationship of actor and structure (adapted from Haan, 2000)

systems), organisations, policies and legislations (e.g. provision of basic infrastructure and services and access to land tenure) that create an enabling or constraining environment for local development.

4.2 Introducing the concepts

The following section presents the definitions and the main discussions over these concepts on which I will base my arguments and observations.

4.2.1 The sacred word – participation

Participation has for some decades been the fashion word of development studies. In the 1970-s, various international agencies integrated ‘popular participation’ as an alternative to the top-down approach of their policies and programmes. The main goal was to increase the control of the poor and excluded over vital resources and decisions touching their lives. (Cornwall, 2001) The concern was raised out of the realisation that there was lack of involvement of local people’s skills, needs and perspectives in development interventions. It should be also pointed out that the development of participatory approaches owes much to the Brazilian educator Paulo Freire and his experience with *concientization* in Latin America.

The participatory approaches aim at making ‘people’ central to development. The objective is to overcome exclusion from institutions and structures of society to achieve social justice. (Cooke and Kothari, 2001). Participation is at the same time a basic need and a basic human right (Cornwall, 2001). It is a voluntary engagement in self-determined change, or people’s involvement in developing themselves, their lives and environment (Mikkelsen, 1995). Participation can be a livelihood strategy that people undertake to decrease their vulnerability to shocks and to improve their living conditions.

similar structural conditions. Therefore, the important base for the following thesis is that social life is heterogeneous. Since humans have different their values and beliefs, and their personal experiences with history, or context there is always some unpredictability involved in their actions. Figure 5 demonstrates that at the community level we find various social, political, physical and economic systems where the individuals are embedded and that influence their livelihood strategies to decrease short-term shocks or carry out long-term improvements in their living environment. At the macro level we find structural factors, such as institutions (social norms and belief

The participatory approach has developed under two main ideological lines: participation as a mean and as an end. (Mikkelsen, 1995; Cleaver, 2001) The former sees participation as a tool for implementing development policies. By involving the beneficiaries it is supposed to improve the efficiency and effectiveness of the development projects. Furthermore, by involving the community members in the supply and management of the service it will guarantee sustainability of the service. This applies not only to state agencies but also to non-governmental organisations. Within this approach development project is designed by the external agents *for* or *with* the people, staying at the level of consultation. (Cornwall, 2001) Seeing participatory development as an end emphasises empowerment of the people. It serves as a strategy to achieve social mobilisation or collective action to reach social justice, equity and democracy. (Cleaver, 2001) In contrast with the previous approach this focus concentrates on development carried out *by* the people.

Within the framework of these two approaches two different reasons for failure can be linked. The mean-approach sees in lack of participation operational while the end-approach sees structural barriers. The operational mistakes that should be corrected in order to make participation work are technical, educational and administrative. In the case of structural barriers, the problems are derived from social conflicts. For removing the anti-participatory social structures wide political reform is needed. (Mikkelsen, 1995)

Participation has been related to various naive assumptions that need to be demythologised in order to achieve positive outcomes from participatory approaches. Participation emphasises community action, which is based on the romantic beliefs about homogeneous community. Little attention is paid to the differences inside the community. (Cleaver, 2001) Another myth is related to individual action. It is assumed that all the people will participate when they have been given the opportunity to do so either for the perceived benefits ('rational economic man') or for the interest of community development ('social being') (Cleaver, 1999). The first model is based on the principle of utility maximisation. (Long, 2001) Participation is driven by self-interest and happens based on the rational calculation if the benefits are higher than the costs (Cleaver, 1999). In the other model of the people are motivated to participate because it is socially responsible and it serves the interests of community development (in the case of public good projects). The individual's are seen part of social structure and their behaviour is explained with social norms (Cleaver, 1999). The people will get into the collective action initiatives because they are driven by altruism and solidarity (Arvidson, 2003). Little attention is paid to the differences motives to participate. Self-exclusion is also hardly recognised. Each person's willingness and capacity to participate in a development process is determined by their unique coalition of social, economic and physical restraints and opportunities. It is important to study how these conditions are influencing people's motivation to be involved in development initiatives. (Guijt and Shah, 1998) People's lives go beyond the limits of the projects. Previous experiences with development interventions could have the impact on people's willingness to become involved again (Cornwall, 2002).

Participatory approaches can become manipulative tools in the hands of strong decision-makers harming the people who were supposed to be empowered. (Cooke and Kothari, 2001) Instead of challenging the existing power relations participation has been criticised for being only a technical fix, which reinforces power structures. The government agencies can use participation as a way to

legitimise their projects in the eyes of society. In reality it may imply that the state has transferred the responsibilities to the community inhabitants. (Cooke and Kothari, 2001) For the local people it means contributions in the form of labour or cash in exchange for services.

Despite the deficiencies and problems related to participation, there is hardly any alternative to development than involving the people who will be affected. However it is important to be aware of the uncertainties with this strategy when we use it.

Participation in waste management

In the following I would like to bring clarity to what participation means in the context of waste management. At the individual level, minimum participation implies involvement in a simple collection system. It involves storing garbage in proper bins or bins separating recyclable materials from organic waste, placing the garbage at the right time in the right place for collection by the waste pickers, bringing garbage to communal collection points for the municipal company to transfer and cleaning the area around the house. (Anschütz, 1996) At a collective level participation can mean participation in more organised activities such as meetings, clean-ups of drains, slopes as well as public spaces and awareness raising campaigns. Furthermore, participation can mean initiating waste projects or being involved in initiatives coming from external sources. In the *favelas* resident associations are responsible for managing the waste collection services in their community. Participation can also mean getting involved in the management level of the waste collection, negotiating with local authorities. It also involves mobilisation of the community to put pressure on the government to provide proper service and projects that includes local needs and interests. It should be mentioned that this thesis deals only with solid waste and not hazardous or human waste.

4.2.2 The romanticised community

Participatory development initiatives are often based on a romanticised interpretation of the concept of community. In sociology, anthropology and economics 'community' is considered as a natural, homogeneous, static and harmonious unit (Clague, 1997). The people living there are assumed to share networks of solidarity, common interests, values and needs. It is argued that the myth of community could help to magnify the exclusion of the interests and needs of the less vocal and more marginalised. It can hide existing power structures and benefit the already powerful. (Guijt and Shah, 1998; Cornwall, 2002)

V METHODOLOGY

The aim of this study is not to test any specific social theory but to gain an in-depth understanding of the lives, experiences and perspectives of women and men living in poor urban communities, embedded in its social, material and environmental context. By studying the interrelations of actors and the structural factors would facilitate a holistic understanding of participation as a livelihood strategy. For this, the interpretations and perceptions of the *favela* dwellers, as well as the community leaders, municipality officials and NGO workers were explored. Therefore, the study was carried out within the interpretive paradigm using qualitative research methods. This approach enables capturing the richness of the perceptions and understandings of the research participants and comes as close as possible to the context in which the people are embedded. The interpretive approach implies that the researcher and the people mutually influence each other in the process of interaction and findings are the result of this

process. The findings are influenced by the researchers own perspectives and values; therefore it is necessary to be transparent about his/her assumptions with the reader. (Richie and Lewis, 2003) The methodological approach favoured in this study is participatory in nature.

5.1 Methods

5.1.1 Participatory rural appraisal (PRA)

PRA is often considered as being a set of exercises and processes that are used by the researcher for learning through interaction with local people, about their lives and reality (Chambers, 1994). PRA embraces interaction between the outsider and the participant in a mutual learning process (Mikkelsen, 1995). Besides obtaining information it attempts to involve the participants into the research process (Mitlin and Thompson, 1995). The aim is also to enable the participants to analyse, share and improve their knowledge of their lives and conditions (Mikkelsen, 1995). This means that research is a collaborative process, where the research is carried out *with* and *for* the people rather than *on* people (Mitlin and Thompson, 1995) Through participatory techniques and the methods the researcher and the participants are in a process of co-learning, whereby the researcher is taking the role of a facilitator and the people are involved as active participants.

The participatory approaches have been historically related to rural development but have recently adapted for the urban context (Mitlin and Thompson, 1995). In relation to the specific character of my study the participatory approach has many advantages. A combination of the secondary data, in-depth interviews and PRA will give the needed diversity of information which facilitates a holistic approach chosen for this study. The PRA methods are good for analysing the historical and social contexts of the participants' lives, in order gain a better understanding of their relation to participation in waste management.

5.1.2 In-depth interview

In depth interviews combine structure with flexibility. The method has some planned topic guide, but stays sufficiently flexible. (Ritchie and Lewis, 2003) The method was chosen to interview the community leaders, municipality officials and NGO workers because of its interactive nature and the opportunity to achieve depth in the participant's answers through probing and follow-up questions.

5.1.3 Causal Loop Diagram (CLD)

Causal Loop Diagram (CLD) in this thesis is used in the first part of my analysis and discussion to illustrate the interlinkages and feedbacks between the factors. CLD is a tool of system thinking. It helps to conceptualise our problems and see feedbacks between the components of the system. The components of a system are linked to each other through arrows, which demonstrate causality. The 'plus' mark at the head of the arrow means that the factor before and factor after the arrow move in the same direction. The 'minus' sign demonstrates that the factor before and the factor after the arrow move in opposite directions. 'R' in the middle of the loop, means that the factors are reinforcing each other over time and moving in the direction of growth or direction of decrease. 'B' in the middle of the loop implies that the factors are balancing each other.

Limitations of this model should be recognised. The model carries the structuralist view, which is what has been tried to avoid by using the actor and structure relationship as an analytical framework in this

study. CLDs fail to present the actor perspective and unpredictability that is accompanied with the human action. It is supported by the Spruill et al (2001) who criticise the tools of system thinking for not taking into account individual values, behaviour, decision-making processes and power relations. Despite of this critique I find it valuable to use this models, since it enable to show the feedbacks and interconnections.

5.2 Research process

5.2.1 Development of the research question

The initial research question was: ‘What are the constraints for participation in waste management in squatter settlements?’ This question was chosen because I was interested in public participation and why does or does not work. I used to have a naïve idea about community participation as being a panacea for local development problems. However, based on the readings of critical literature and experience as a volunteer in a low-income community I learned that there are various constraints that hinder participation from functioning in practice. Therefore, I intended to look into the problematique of participation using waste management as an example. Through exploring the perceptions of the research participants I learned about the complexity of the issue and that there are many different factors influencing popular participation. In some cases participation does work but in others not. Hence I rephrased the question to incorporate also an understanding of what makes participation work. The final research question is then: ‘What factors in *favela* settings affect people’s participation in waste management and how?’

5.2.2 Process on the field

The fieldwork in the slums of Rio de Janeiro was carried out during July-August, 2003. The local non-governmental organisation IBISS who is doing community work in various *favelas* in Rio de Janeiro introduced me to local organisations and leaders in two of the *favelas* that I had chosen for the fieldwork.

The empirical work in the two *favelas* was done during 7 weeks. Two communities seemed to be the maximum number that could be studied during that short time. The field study in these two areas were made in parallel. However, the study in Vigario Geral had to stop for three weeks because of an invasion of a rival drug commando from the neighbouring community. Due to that, I had to direct all the focus to Santa Marta. In the end I got more in-depth information about Santa Marta than I would have received studying two communities at the same time. From the beginning of my research in Santa Marta I experienced internal power relations between the community groups. I learned that it is not easy to maintain neutrality as a researcher as your position can be highly influenced by whom you are talking to and with whom you are seen with. It is necessary to be aware of power relations.

In both of the communities the first step was to get to know local leaders to introduce them to my project and discuss how and when to organise group meetings. The local leaders also presented me to the local inhabitants who I could invite to group meeting to discuss the community matters. In Santa Marta finally 6 people were participating in the PRA exercise. Since the meeting in Vigario Geral was announced in the local radio and advertised, more people with diverse backgrounds and age groups took part in the meeting. The following PRA methods that were used are as follow:

Mapping – The method was used in order to see how people picture their community. The exercise gave an insight, which roads, houses and other parts are prioritised by the people. It provided information about the access to public services and infrastructure and the critical points of waste.

Venn diagram – This method was conducted in order to identify the importance of community-based and external institutions to the community development. The level and frequency of interaction between the institutions; and institutions and the community was identified.

The group meetings were useful for obtaining a good overall picture of the community. In order to get a household perspective in Santa Marta I visited 16 households and in Vigario Geral 5 households. All the interviews were tape-recorded based on the participants' consent. I selected the people geographically from different points, with different socio-economic backgrounds and different level of involvement in the community life. Among this group were those who were active in local groups; waste picker; those who were living in wooden houses being vulnerable to effects of the accumulated garbage and floods and people who lived in brick houses. The methods employed were:

Semi-structured interviews – This method is conducted based on a rather open framework, which allows for focused, conventional, two-way discussion.

Problem ranking – This technique illustrates the problems that exist in the lives of the residents. The problems were ranked based on their importance to the interviewee. This method enabled an understanding of how waste was ranked in relation to other problems.

In the process of carrying out the fieldwork, other important topics appeared, i.e. heterogeneity of the community and social capital, which are important factors that contribute to greater understanding of participation.

In-depth interviews were conducted with the community leaders in both of the communities, officials of Municipality Company and NGO workers (see Appendix for the interviewees) who are carrying out services or projects in the *favelas*. The interviews with these actors were made in parallel with the household interviews, which enabled information to be crosschecked. Discussions with them these actors provided valuable information about the history of *favela* movements, *favela* relations with wider society, public authorities and NGOs, operational and administrative issues of waste management. These interviews enabled me to put the *favelas* into the wider political, cultural and socio-economic context.

5.2.3 Limitations of the material and methodology

Qualitative (participatory) methods are criticised for its selection of respondents and sampling (Mikkelsen, 1995). The purposeful sampling chosen for this study may leave some views out, which does not give the complete picture of the problem (Mikkelsen, 1995). As discovered during the fieldwork, *favelas* are very diverse entities. For this reason I wished to make sure that multiple views were be presented in the group of research participants. However the views of the latecomers from the North East of Brazil who have settled in the downhill part of the community are missing. This definitive conclusions about the results of the fieldwork cannot be made. In order to reduce the bias of sampling, local leaders who have good community-wide knowledge have been interviewed. One may

ask if qualitative methods should be judged based on the criteria, such as representativeness, which is used to assess quantitative surveys. Keeping in mind the heterogeneity of the community, this raises the question whether it would be possible to generalise and say that people in a *favela* think in a certain way.

A researchers' capacity to act as a facilitator plays a significant role in making the PRA exercises successful. 'Handing over the stick' to people is more difficult to achieve than is described. Usually during the group meetings there is a time pressure. The research participants have their own lives and the meetings remain short. This means that the time should be used efficiently and effectively. In this time pressure there is a danger that the facilitator is taking too much control over the situation in order to get answers to his/her research questions. This could mean that the whole meeting will become a process of answering the research questions interesting for the researcher, not enabling the participants to influence the direction of the discussion and express their real worries. This can distort the final results.

VI ANALYSIS AND DISCUSSION - THE ENCOUNTER OF THEORY AND PRACTICE

This section is divided into three parts: '*The myth of community*', '*Participation – Municipality, NGOs and the people*', and '*Discussion and challenges to overcome*'. The analysis and discussion in '*The myth of community*' chapter, builds a base for the arguments, that will be developed in the chapters coming after. The information gathered in the field from the participants in two communities and other important actors will be analysed and discussed through the framework of actor and structure relationship. Presentation of the field data is intertwined with theoretical analysis and discussion.

6.1 The myth of community

"We should leave behind the myth that the whole favela is a collective, that the whole favela is a community. It's not like this. It brings difficulties and prejudices to the people."

Itamar Silva

As introduced in the section of 'Theoretical framework' participatory development initiatives rely on a homogeneous and harmonious community. Community is presumed to be an equitable collective that can be characterised by solidarity as well as common needs and interests (Guijt and Shah, 1998). Senge (1998) identifies that in a community people build commitments to each other and to something that is appraised as a common thing. Amin and Thrift (2002) claim that the residents as members of a collective act and think together as one entity and they share a common memory extending to the past. Moreover this entity embraces social networks and relationships, which have the capacity to mobilise for collective action (Calhoun, 1983). Delanty (2003) points out sense of belonging as an important trait of a community. However he also argues that the postmodern age where we are living can be characterised by multiple belongings. The new age is insecure and the problem of belonging has become more articulated. What is typical to postmodern community is difference instead of identity, contingency rather than certainty, shift beyond the unity, mobility and communication. (Ibid)

According to Cleaver (1999) it is more realistic that inside one community we can find at the same time solidarity and conflicts, dynamic alliances, social and power structures. Furthermore the administrative boundaries of the community do not necessarily have to coincide with social boundaries (Ibid).

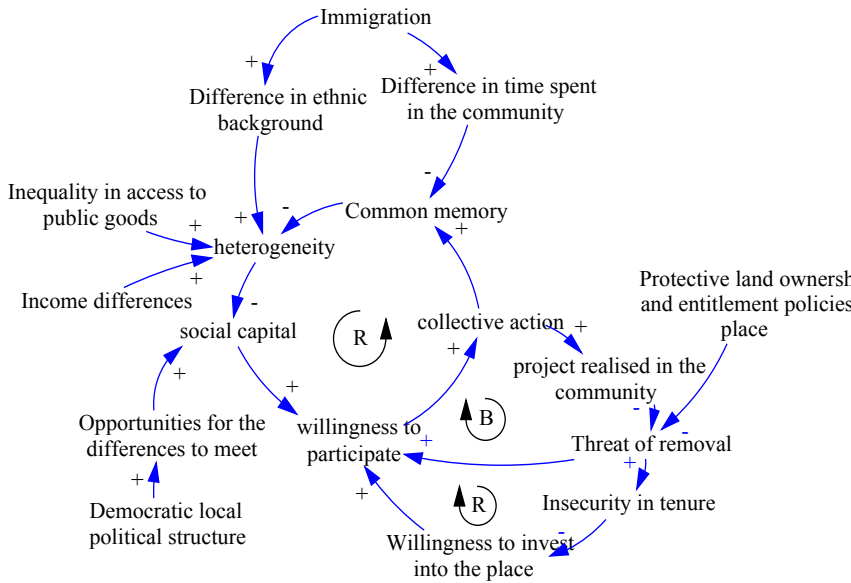


Figure 6: (How to read this diagram is explained in the 'Methodology' chapter). Heterogeneity is the principle concept that this chapter is trying to show. More heterogeneity in the community is expected to decrease the level of social capital, which leads to less willingness to participate, therefore less collective action, which means less common memory, which results in more heterogeneity again. The cycle is disturbed by exogenous factors. Heterogeneity can be increased by the differences in ethnic backgrounds, inequality in access to services and income differences. However it is important to note that heterogeneity does not definitely have to decrease social capital when there are democratic structures in place. Another important relationship that this figure is trying to show is the insecurity of tenure that influences the willingness to participate in a negative way.

Favela and community are often used as synonyms. When the *favela* dwellers were asked what 'community' means for them, several of them said that Santa Marta is a community. Earlier, when people used to talk about their *favela*, they said: *favela* Santa Marta and *morro* (hill) Santa Marta. Now word '*favela*' has been substituted with 'community'. Sense of community seems to be a controversial issue. In certain instances people feel like a community; on the other hand they do not. The following chapter will present the finding and will analyse how the dwellers perceive their community in order to understand the diverse local networks, conditions and interactions, which are important for determining people's willingness and incentives to participate. Figure 6 represents a conceptual model that describes the components discussed in this section and how they are linked to each other.

6.1.2 Dynamics of community

Geographical dichotomy

The most evident example of heterogeneity prevalent in the hilly community is the clearly distinguishable social, economic, cultural and political differences in two geographical points – uphill and downhill. The following quotes illustrate the geographical division of the hill. An old couple that is living uphill told the following:

“The top is isolated and forgotten. (...) People here are isolated and nothing happens here. (...) Everything is made downhill. For the people living uphill is made nothing. The top does not have any value.”

A man who has been fighting for improving the upper part of the hill for a long time tells us:

“Many things that arrive to Santa Marta, to the residents’ association, in order to benefit the whole community, stay at the bottom. The improvements do not arrive to the top; the resident association does not reach here. (...) Up here we do not have a sewage system. (...) Some years ago we did not have water here. We talked to the Resident Association that they would buy a pump. They did not place it here. We mobilised ourselves here and bought one pump, pipes and connected everybody to the water system. Whenever there is a problem here, we are resolving it. The residents’ association has done few things here. Everything is done with the capacity of the residents. People who were born and have grown up here want to see this part of the hill develop.”

A woman who in the earlier times used to live in the upper part of the hill and after some time was able to buy a house in the bottom said that:

“People who live in the top and meet me, ask why I have disappeared. They ask if I have become rich that I had moved to the downhill, to the wealthy South Zone.”

Based on the quotes one can see that two distinguishable *favelas* exist in one community – the uphill and the downhill. According to Cleaver (1999) the administrative boundaries of the community do not have to coincide necessarily with social boundaries. It is supported by one of the interviewed community leaders in Santa Marta who said that there are two extremes in one community. Often one side does not know what happens on the other side. There is a difference of origin. The inhabitants who live uphill have been living in the community for a long time. The downhill residents are latecomers, the emigrants from other states, principally from North East of Brazil. Often they come to Rio to stay for a short time to live cheaply and collect income in order to return to their homes. They have put a foundation on the developing rental market. People uphill are experiencing poorer social and economic conditions, which is often expressed in the housing conditions. The access to services on the top is also scarcer. The development projects of the government have put those living downhill in a privileged situation. There is more developed infrastructure, proper sanitation system and one cannot see sewage running in open drains. Closeness to the city and the benefits it offers has made the downhill more valuable in the eyes of the citizens. Furthermore the upper part is also related to violence since the drug-dealers tend to hide and conduct their dealings there. Associating the top with violence is an important factor that contributes to the division of the area.

The quotes indicate that certain groups of people are excluded from the benefits that are bestowed to the community. The action of the drug-dealers could be a barrier to why the benefits do not reach the top. This demonstrates that the *favela* is not simply a low-income community since different social classes are evident. (Income differences and unequal access to public goods as shown in Figure 5 contribute to the local heterogeneity). Based on Guijt and Shah (1998), not paying attention to the different needs of the people who experience unique living conditions, would exclude the weaker groups even more. The residents’ association and the municipality have been criticised for not distributing the goods to the whole community. It shows that the people in the uphill have low level of trust concerning the performance of the association. It is problematic when the association is the representative body of the whole community.

Sense of community and illegality

The sense of community is a controversial issue in *favelas*. When the respondents were asked whether they feel like a community the people said that they do because everybody knows one another and they have grown up together. Nonetheless, for most of the people it is a temporary place to stay because they cannot afford formal housing. As pointed out by Oliveira et al. (1993) squatter settlements in Rio are for its population a survival strategy. According to the opinion of one community leader in Vigario Geral, 80% of the people want to move away. As expressed by the research participants they have to live there and like it. One male participant said that:

“This place is a temporary place to me. My idea is to leave from here. I am investing in my home but later want to sell it to earn more money to buy another house. Most of the people think like this. Many people come here to live temporarily, they want to move but do not have conditions for that. Many people who leave return later because everything here is close: supermarket, kindergarten, hospital. In another place there is nothing.”

Another respondent said:

“My house is not mine. The land is not ours. (...) You do not have security. People feel at home here because they were born here. When it comes to insecurity from removal we do not feel at home.”

A man who lives uphill tells the following:

“Why to invest your money and time here to improve the community when there is a risk that the *favela* will be removed and relocated to another place. The materials are expensive.”

A woman who has seen the evolvement of the community during more than 25 years tells that:

“Until this hill is not urbanised or registered, here exists fear that we will be removed from here. People do not have security because any moment we may have to leave from here. It is not ours and we do not own it. We do not have property. We build the house but we do not own it. People come here to stay not to live. When urbanisation project would enter we would be registered and have the right.”

The previous quotes illustrate how the unofficial occupation of land creates vulnerability and insecurity in terms of the future. *Favela* can be a necessity to its inhabitants. Even when its citizens can afford formal housing they are located in the suburban areas, far from the economical centers, making work, or informal work, more difficult to arrange. Dwellers have a wish to leave the *favela* as soon as they get the opportunities to move to a less violent and a better serviced area, not far from the downtown area. On the hand, as one of the quotations demonstrates, some people who move, return later. This can mean that in their minds *favela* can be a temporary strategy, but in reality it can be that it is a permanent strategy. What attracts the residents in the communities located in the city centres is the access to various advantages that one cannot find in suburbs. According to Soto and Litan (2001) the choice to live in informal areas is based on cost-benefit calculation. In comparison to the suburb, the cost of living in *favelas* is lower: people hardly pay taxes in squatter settlements. It is also a choice for the middle class that is forming itself in Santa Marta mostly from the emigrants from the North East of Brazil. For them informal living is an opportunity. As explained by the community leader of Santa Marta, many people from North East are coming to spend time in a *favela*, they improve their financial situation and move back to their land.

This short-term thinking in terms of the place can result in a lack of willingness to invest into the community (link is shown in the Figure 6), because it acts simply as a trampoline to a better place.

Once they find a better alternative they leave. A study that was carried out in the squatter settlements in Guatemala showed that insecurity with land tenure was one of the factors why people felt that it is not worth investing their time and money in the community (Grant, 2001). However insecurity in tenure and fear of removal has mobilised the Santa Marta residents during the history to manifest against the removal (the link is shown in the Figure 6). Besides the majority of the community improvements, such as electricity, water system, housing and stairs are realised through the self-help projects for improving the community and guaranteeing the place in the city structure. With works and investments from the government the community has reduced the risk of removal. As mentioned in the 'Background' chapter the municipality has initiated an extensive *favela*-upgrading programme *Favela Bairro*, which means that the removal is not a strategy anymore. However among the communities, which have not been upgraded yet, the fear of removal has not disappeared. That the fear is still there is well portrayed by the words told by the newly elected female president for the residents' association in Santa Marta:

"My opinion is that when the municipality and the government do not have the interest to accept this hill, we have to take an attitude and demand for what we have the rights. We have the rights. We already conquered a lot, but they do not respect our right. Therefore I think that we should unite and fight. We know that they have planned to remove us from here. For how many years have we fought to have the upgrading works here? I do not want to be deceived by nobody. I will try with my knowledge to create awareness in people that they deserve and need the upgrading projects. We will fight!"

The promised urbanisation project that would bring significant improvements to the lives of the people and provide some sense of certainty in terms of the future, has still not taken place. The problem ranking exercise (Table 2 on the page 25) showed that it was the residents' the biggest concern.

The previous discussion raised the issue whether the *favela* citizens are rooted in and bonded with their community. Hay (1998) points out that these two concepts such as rootedness and bondedness are playing an important role in determining how attached the people are to their place. Rootedness is related to 'length of residence', ownership of home and anticipation to stay in the same residential area. Bondedness is related to the feeling of being part of the neighborhood. (Ibid) Both of the *favelas* demonstrate certain amounts of stability in the population, whilst persisting to expand through natural growth and land invasion. There is a group of inhabitants whose families have during several generations lived in a *favela*. Besides there is another group of people who have been emigrating from other states. The length of residence in the area of the latter is short. Both of the groups intend to leave from a *favela*. Besides the latecomers have not experienced the mobilisations of the residents in the past. Therefore they lack common memory, which is identified by Amin and Thrift (2002) as an essential factor for building sense of community. The people do not feel in a similar way rooted and bonded with the place.

Social capital

Favela inhabitants, although from outside treated as a homogeneous collective, are embedded in different socio-economic and cultural realities. Therefore it is difficult to talk about common shared values, beliefs and needs at the community level. Analysing social capital in *favelas* would provide an understanding of how harmonious the community really is. Putnam (1995, p67) is defining social capital as: "social organisation, such as networks, norms and social trust/beliefs, that facilitate co-ordination and co-operation for mutual benefit". Furthermore Ostrom (1997, p158) argues, "It is

common knowledge, understandings, institutions and patterns of interactions that a group or individuals bring to any activity”. Ostrom (1997) names trust and reciprocity as important criteria for social capital. Trust as argued by Pretty and Ward (2001) can be in individuals whom we know and we do not know. However the trust in the ones who we do not know increases because of the reliance in the familiar social norms. Social capital can embrace horizontal relationships between the community members and groups as well as vertical relationships between communities and institutions (Grant,

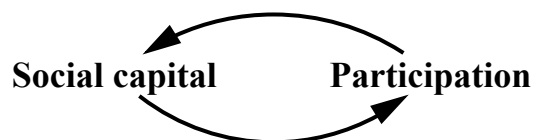


Figure 7: Interrelationship between social capital and participation

2001). There is a mutually reinforcing relationship between social capital (trust, solidarity and reciprocity) and participation (Figure 7). Grant (2001) warns that social capital does not have only positive but also negative consequences and may have both opportunities as well as limitations. It can improve the operations of the drug gangs as much as the community organisations’ (Grant, 2001). In the current chapter I will discuss social capital at the community

level, whereas this topic will be discussed further in the following chapter.

Both of the *favelas* have a rich variety of social interactions. It is important to emphasise that both of them have groups with different ethnic backgrounds and who are more or less rooted in the place. When we look back at history then both of the *favelas* have experienced fights and collective action for its survival. Not all the members have followed and experienced the development process of the community. The head of a local health organisation in Vigario Geral tells the following:

“2000 out of 7000 people saw how the *favela* grew. Majority of the residents are emigrants and did not see the transformation and evolution of the *favela*, the progress of Vigario Geral. Vigario Geral was built with lots of fight, co-operation and community mobilisation. At this time the neighbours knew each other. Few people who are here today are born here. People at the age of 30-40 do not know the history of the community. (...) The citizens do not have the same knowledge. It is difficult to mobilise them.”

The previous quotation is one example how people’s different values and beliefs have evolved during historical processes. Not all residents have experienced the process of community development equally. Since different groups have not worked together it implies that we can talk about disparate understandings and memory among the inhabitants. During the interviews the respondents said that in the past the social support between families was stronger. People helped to build each other’s houses in the locally initiated self-help (“*mutirao*”) projects. Now everybody only cares about himself or herself. However, according to one female participant in the case of emergency, illnesses, landslides and collapse of houses during heavy floods the differences between people do not matter. Everybody helps each other. Historically, both of the *favelas* principally Santa Marta, are known for mobilising to make demands for services and rights. Oliveira et al. (1993) claims that solidarity between the inhabitants appears when there are landslides, collapse of the houses, diseases and funerals. As the leader of Grupo Eco also agrees, solidarity exists when the community suffers from the same problem – violence, drug wars, poor infrastructure, and basic sanitation. In the next chapter I will discuss why there has not been similar mobilisation for dealing with waste.

As UN-Habitat (2003) puts it, social capital – the networks between people - helps to protect the households from these kinds of shocks. Oliveira et al (1993) argue likewise by discussing to what extent this solidarity between the habitants is not only a mechanism of survival but also a “shock absorber” for the social conflicts that the slum population faces (Oliveira, 1993).

Large inequalities between the residents can contribute to the erosion of social capital (Moser, 1998). The social and economic heterogeneity related to distribution of incomes, opportunities and access to services, infrastructure, and political impact could undermine the community and inter-household process of trust and cooperation (Ibid). Nevertheless, heterogeneity does definitely not have to lead to low social capital. It depends how democratic the *favela* political structures are. Good governance practice would enable the differences to meet through local gatherings and meetings. In 1980-s Santa Marta residents’ association succeeded in building social networks to improve decision-making by inviting the representatives from the different parts of the community to participate in the association work. This made the decision-making more responsive to the different needs of the residents.

The discussion about the sense of community in *favelas*, has demonstrated that *favelas* are dynamic and complex. Although being linked to irregular and informal occupation of urban land, its residents do not form one homogeneous unit. It cannot be treated as either a ghetto, a marginal area nor an enclave (DPU et al, 2003). The diversity in images, identities and demands in *favelas* was already acknowledged in 1960-s by Machado (1967). In a historical processes, the diversity of the interests and identities of the *favela* residents strengthened and widened (DPU et al, 2003). Idealisation of the idea of community where its inhabitants are a collective group of beneficiaries can result in neglecting the comprehension of local inequalities, power structures, interactions and social groups, which are determined by socio-economic, ethnic, religious, political, age and gender factors (Mikkelsen, 1996). The voice is given to those who already are more articulate and enjoy the power position. (Guijt and Shah, 1998) Consequently it will lead to further exclusion of the needs and interests of the less powerful groups of people. (Cornwall, 2002) Being aware of these aforementioned factors, will help to understand the context based identities, motives, perceptions, desires and needs that affect the participation.

Community and waste management

The major challenge of the waste project is to pay attention to community-based differences and how people perceive waste (Gomes and Hogland, 1995). In the following I will discuss how the inequalities are expressed in terms of waste. How some people are excluded from the services and how different groups experience and perceive waste. The conceptual model about the following section will be presented in Figure 8 on page 23.

Access to service and vulnerability?

The study about “Communication for sustainable urban livelihoods” carried out in Santa Marta by DPU, IBAM and IBASE demonstrates that besides difference in social classes in a *favela*, the distribution of public services varies in terms accessibility and vulnerability. This contributes to potential tensions between the dwellers. (DPU et al, 2003) Whilst around 21% of the Rio *favelas* experience inadequate access to waste collection service, approximately nine percent of the Santa

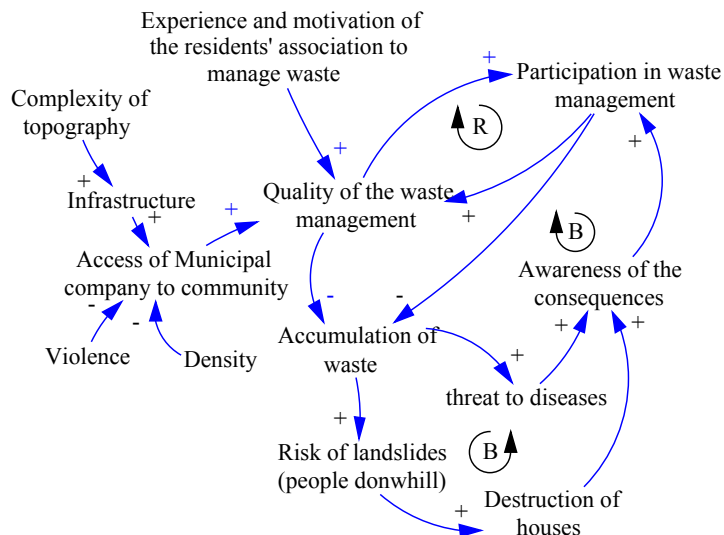


Figure 8: The figure shows a relationship between the quality of waste management system and participation in waste management. The better is the quality of the waste management system the more participation there is generally (especially in the uphill where the collection does not reach). The more participation there is the better is the waste management. It is a reinforcing loop. Participation in waste management is defined in the chapter of 'Theoretical framework'. The quality of the system is influenced besides by the performance of the municipal company, and motivation and experience of the residents' association. Low quality management leads to accumulation of waste, which with the help of the floods can cause risk for landslides for the people living downhill, by the drainage channels. This can result in the destruction of houses. Both, threat to diseases and risk of house destruction result in the higher awareness of the risks and results in more participation in waste management. However the limitation of this CLD is that it does not show the unequal access to waste management, which leads to less options to participation for the people living in uphill. Besides when the risk for landslides and diseases is decreasing it will not lead to the decrease in awareness, neither participation. Past experience with landslides and diseases keeps the awareness high and supposedly people participating.

of the service, while the people living at the entrance of the community were more satisfied. A man living between the lower and upper reaches reveals the following story:

“The waste pickers are not efficient. In some days they are coming to pick the waste and in other days not. They do not come here and the amount of garbage is growing.”

A man who lives on top of the hill explains that:

“The waste collection workers do not come here for 2-3 days. They only work on the bottom of the hill. To clean down there is a priority.”

Marta households do not have an access to appropriate service (IPLANRIO, 1997). It has resulted in accumulation of waste inside and around and a notable accumulation of waste in the upper hilly areas of the *favela*. The waste is a major problem not only in terms of its visibility but more so because of the associated health problems and the insecurity it creates, especially in terms of magnified landslide risk. When the research participants were asked about the access to services the answers demonstrated inequality between the groups. A woman currently living in the noble bottom area formulates it in the following:

“The path in the Cantao (the way part of the downhill is called) is always clean because the workers are sweeping. We have sanitation system here. In the top there are many places where it is still very bad. They do not have sewage system and have dirty drainage channels.”

The leader of the community group Grupo Eco in Santa Marta explains the cleanliness in the lower section with the well-functioning service. The “gari” (waste pickers) work mainly lower reaches. The dwellers that are living in the middle and upper part of the hill were complaining about the poor quality

The respondents explain that service in the upper part is precarious. Why is it like this? According to Comlurb official the topography of the *favela* is very complicated as explained in the background information of the study. (The links are showed in Figure 8). As told by him, complex access, stairs, narrow unpaved streets and lack of urbanisation works prohibit the municipal company to enter with truck and collect the waste. Access to the top can also be made complicated also by the drug gangs. The government has built the basic infrastructure only in the lower reaches of the hill due to lower costs. Because of the high density and narrow streets in the upper part there is not enough space to locate garbage bins in the areas in between. Therefore the collection sites are at the top and at the bottom, where there are two collection centres, which are far from the residents living in the middle part. The waste pickers work mainly where there are proper paved roads and sanitation system. It implies that the people who do not benefit from the government investments cannot benefit from the basic refuse collection service. Their choices to dispose the garbage are limited.

Another reason behind the poor service at the *favela* level identified by the Comlurb official applies to the poor management by the president of the association especially when the local leaders are related to drug-dealers. Nevertheless, according to interviewed local leaders and the dwellers themselves one cannot forget the consciousness of the local people as well as the waste picker in keeping their area clean. Local leaders suspect that municipal company's bigger attention on downhill areas is their strategies to avoid the garbage reaching the "formal" city where it can disturb the "legal" citizens.

Accumulation of waste can lead to serious environmental health problems and can contribute to landslides and the collapse of houses (McGranahan and Satterthwaite, 2000) (as described in the background paragraph). Therefore those living close to waste accumulation sites in *favelas* are more vulnerable to these problems. (See Figure 6 for the links). Compounding this problem is that their options to dispose of waste are also limited, thus it contributes to an already problematic situation where waste is constantly is accumulating, ensuring that the associated risks are always present. For an example, residents living in wooden houses above the drainage channels that are congested with waste washed down by the rain from the upper reaches are put at risk to flooding and disease. A number of the participants residing above or near the drainage channel reported that either members of their families or themselves had suffered from leptospirosis – an illnesses carried by rats. These people cannot benefit from the improvements in the community, are further impoverished by the shocks to their economic and human assets. The vulnerability to diseases and landslides as incentive to participate in community action projects will be analysed in the section of 'participation'.

Waste as a community divider

In the following section I will discuss how the *favela* dwellers perceive the role of waste in their lives and community. In order to get an idea, which problems are the most critical in the lives of the squatters, *favela* dwellers were asked to rank these problems in the community. This exercise was also valuable for understanding how waste is placed in the list of people's priorities. The exercise was conducted together with every interviewee. Most of the time the participants came up with 5-6 problems. The summarised result of the exercise is outlined below on the Table 2. The problem that was ranked first the most often is considered to represent the problem with the highest concern for the people. On the table the problems are ranked from 1-15 where 1 represents the largest problem. Since the people who have settled down in the down part of Santa Marta were not interviewed, this table

does not represent their views. Therefore the table may not provide the complete results of the exercise.

Table 2: Problem Ranking: The problems that influence the livelihoods of the *favela* residents
 Participants: Community Santa Marta, 16 people. Community Vigario Geral: 6 people.

Community Santa Marta	Community Vigario Geral
1. No urbanisation project	1. Unemployment
2. Waste	2. Violence
3. Poor housing quality	3. Poor sanitation system
4. Poor sanitation system/open ditches	4. Education
5. Poorly working water system	5. Lack of information
6. Unpaved road	6.–7. Hunger/No ambulance for the case of emergency
7. No respect between people	8. Drug-dealing
8. Low level of unity	9. Poor quality of electricity
9-15 Unemployment	10. Waste
Scant Electricity	
No Locomotion	
Drug-dealing	
Disrespectful police	
No Health Care Centre	

Most of the research participants in Santa Marta mentioned that waste is a problem that should be resolved. Even if a need to solve the solid waste problem in the community exists, it is even more interesting to study why there have been no initiatives to resolve it. As one male respondent stated, during the time he has been living in Santa Marta (which is more than 40 years) he has not been aware of any movement for improving the waste problem. However, according to other respondents and local leaders community group Grupo Eco has organised various campaigns to encourage people to collaborate with the collection system. Nevertheless, an initiative to start a recycling project was discouraged by the local politicians. The area appropriate for the collection of separated garbage was given for the local commercial development. Therefore, it shows that the community residents and groups can have different priorities in local development.

The results of the problem ranking exercise in another community Vigario Geral show that waste ranks low on the list of peoples problems. It may be because of the small number of residents interviewed giving a distorted view of the problems. However it is also important to note that municipality has urbanised already half of the community. According to Comlurb officials this facilitates the work of waste pickers and residents to keep the area clean. From my observations the resident organisation of Vigario Geral in comparison to Santa Marta performs better management of waste collection. The president and the waste pickers are communicating constantly about the improvements of the service. As appeared from the interviews with Santa Marta dwellers the community has not had proper leadership for 15 years. The presidents have been corrupt and have been linked to drug dealers. The

administration fee allocated by the Comlurb to the association have not been used for the improvement of service.

It is important to analyse whose problem waste is. Is it an individual problem or rather a community problem? The director of Grupo Eco mentions that waste in Santa Marta is a problem, but it is not a visible problem for most of the people. It is not a problem that influences all of the people.

“Before there were many more open drainage channels. The risk was bigger. Today less people are bearing the risk of house collapse magnified by the waste. There are also less health hazards. How many people have had leptospirosis? Few people. It means that waste is a problem for fewer people. For most of the people the issue is far away.”

What the community leader says illustrates how waste is a problem to people who are suffering from its consequences. For the rest of the people, it is a problem that is far from them. It is a community not an individual problem. How this influences people’s participation will be discussed later.

As expressed by the respondents waste can be a community divider. Between the neighbours as well as residents and garbage pickers. Oliveira et al (1993) claims that conflicts between the *favela* residents are prone to happen because of the high density of living. Fast growth of the *favelas* has resulted in extreme closeness between the dwellers and aggravation of the problem of waste. When it comes to garbage, it represents a source of conflict in the relations between the residents. As expressed by the Santa Marta residents:

“In the community there are many sisters and brothers, some of them annoying. You are sweeping your part. The neighbour is passing by and throwing his/her garbage there. It just distracts your peace.”

For these inhabitants garbage portrays relationships, which are not always friendly and respectful between the neighbours. The quotes above demonstrate the level of trust and reciprocity, which as identified by Ostrom (1997) expresses the level of social capital. When there is a high level of trust between the residents, they can bring about “credible commitments” to each other and count on “reciprocal relationship”. According to her it will result in better outcomes than when these forms of social capital are not in place. In a reciprocal relationship, when the people contribute to the well being of others they assume that the others will do the same. I will continue discussing social capital as an importance factor in determining the willingness to participate in accessing and maintaining the essential social and economic infrastructure.

I have tried to prove that *favela* does not represent only homogeneous and harmonious relations between the residents. People do have various needs and interests. Therefore heterogeneity should be the basis of understanding participation. However, the diversity is often ignored in policy making and planning process.

6.2 Participation - Municipality, NGOs and the people

Previous chapter about the heterogeneous nature of community is the basis of the analysis and discussion in the following chapter. What is the approach of the municipality and NGOs towards participation, and which kind of models of participation exist at the community level will be the topics of discussion.

6.2.1 Municipality and NGOs – facilitating empowerment?

In the previous chapter I exemplified and discussed how *favelas* embrace complicated social networks, conflicting relations, interests and needs. In this chapter it will be analysed and discussed how municipality and NGOs address these factors in their policies towards communities, and what the implications of their approaches on *favela* residents are. As presented in my theoretical framework, the structure can enable or constrain the local strategies. Public authorities and NGOs with their policies of participation used in *favelas* can create constraints and opportunities for local development. With their interventions and approaches to development they can have a significant impact on the participation and empowerment of the community residents.

Municipality approach – cost-efficiency and effectiveness under the name of participation

The community leaders and NGO workers criticised heavily the performance of the government authorities in the poor communities implemented during last couple of decades. Some politicised leaders in Santa Marta reported that the *favela* citizens have gained access to basic rights with some sacrifice. Citizen participation has been one of the conditions for the state to provide the access to the basic services that the *favela* dwellers have the basic right to. For example since the 1980-s the public authorities used community self-help projects, i.e. local manpower, to provide them basic infrastructure. According to the leader of Grupo Eco, not all the processes that claim to be participatory really are. From his experience in social movements for demanding equal rights for the *favela* dwellers he was able to give valuable insight regarding the policy of the public power:

“Lots of participation is just one big consultation or legitimatising the projects of the public authorities. The aim is just to quantify the participation but not let the population to interfere in the decisions. When the authorities are facing some resistance by the dwellers, they start to disqualify the ones who question or do not accept, or they try to disqualify the ones who come up with their own proposals. I do not see any interest to enlarge the effectiveness of the participation, the one that allows defining and listens. The external agents are entering the communities with ready-made proposals. The project contracts locals. They can mobilise the community for waste management for example. However this does not mean that this population can interfere in the direction of the proposal because it is already defined. In one hand it is good for the community because the projects create jobs, but it does not listen and does not think critically if this is what the locals really need and want. It is what we should decide. We have a history. However it is not a problem of the citizens, it is a government culture that looks at the population as beneficiaries. Democracy is the encounter of differences, which meet in debates. When you do not want to debate and you do not give anybody the chance to criticise your idea the only possibility to execute it is with autocracy. Autocracy can express itself in various forms. One type of power is money and the other is the authority of the government.”

The previous statement illustrates various problems related to external interventions, executed by the public authorities as well as non-governmental organisations. As argued, the state executes projects with a top-down approach – either you accept their proposal or they exclude you. The beneficiaries are seldom invited to express their needs and interest to be part of the elaboration of the projects or programmes. They are rather used as manpower to implement already defined interventions. As commented by the IBASE worker, participation as such, can be perverse in that it can provide the poor communities with precarious services of secondary or tertiary quality. The community is used to improve the quality of the service because the municipal waste company itself cannot handle it due to the violence or the difficult topography of *favelas*. Comlurb assumes his responsibility for the service until it has success and based on the public opinion it is a good example for its social responsibility.

The rest, when there are problems with the quality of the service or workers rights, it is the responsibility of the residents' association. (Oliveira et al, 1993) The fact that *favela* garbage pickers are paid twice as little as the waste pickers in the streets, as told by the *favela* waste picker, proves that *favela* residents are considered as low-cost strategy. The critics given by the NGO workers and CBO leaders is supported by Cooke and Kothari (2001) who argue that some participatory approaches put the responsibility on the community, which means that participants contribute with labour, cash or kind. It implies that some project costs are transferred to the so-called beneficiaries. Hence participation can be used for legitimatising the projects in the eyes of the society and carrying out the project in a cost-efficient manner at the same time compromising the locals needs and empowerment.

However it is argued that by bringing development to the “closest appropriate level” in order to guarantee cost-effective and efficient service provision is an important criterion for achieving good urban governance (UN-Habitat, 2003). One expression of it is self-management and –maintenance of the service by the community. Brett (1996) states that the centralised and bureaucratic service delivery has shown its flaws and that it has forced to focus on participation and empowerment instead of control and hierarchy. I argue that the problem is not in involving the people in implementation of the project but the problem lies in who is included in what (i.e. in which stage of the intervention) and how. The government in Rio has set the goal to integrate the squatter settlements with the rest of the city structure, which is demonstrated by the launch of successful *favela*-upgrading programme “*Favela Bairro*”. Also in 1980-s appeared a need to include the slums in waste collection service (Oliveira et al, 1993). However, by providing low-quality waste collection service could mean that *favelas* are included in terms of physical service. Nevertheless physical inclusion is not enough. UN-Habitat (2003) new Global Report on Human Settlements “The Challenge of slums” argues that inclusion means also participation of the disadvantaged urban citizens in the decisions that have an impact on their lives and responding to their needs. As argued by the interviewed CBO leaders and NGO workers this kind of inclusiveness is very weak in the approaches employed by the public authorities. Their participation excludes more than includes.

Belief in homogeneous community

As expressed in the previous quotation (see page 27), the interventions disqualify the ones who do not accept the projects or question them. In the chapter of ‘The myth of community’ it was argued that community is seen as homogeneous and harmonious entity, where everybody shares similar needs and interests. Power relations and possible conflicts are not taken into account when the interventions have been planned. The sentence “we have a history” also implies that the historical background of the communities can be overlooked. According to Mosse (1997) the basis of planned interventions is a homogeneous community as ahistorical and apolitical place. This kind of assumption of homogeneity of interest as discussed in the last chapter and illustrated in the statement by the Grupo Eco leader, can create a division in the community – some residents are included but others are excluded.

However there are NGOs who are trying to address these power divisions in project development. The worker of Onda Azul said that it was necessary to take into account the presence of the drug dealers in negotiating the possibilities of bringing the recycling project into the community. The permission of the leaders of the drug gangs as well as the community groups was crucial in order to get an

acceptance to run the project. On the other hand for the municipal waste company, participation means involvement of the president of the resident association. As the Comlurb officials said:

“Participation for us is the president. (...) He/she talks on behalf of the residents’ association. He has to negotiate with the directors of the association and population. He is the representative for us. We are trying to attend his ideas and proposals if we can.”

The statement illustrates how the public authority considers the president to represent the community. It is assumed that the presidents communicate with the directors of the association as well as the population. Nonetheless, the president does not always represents its population. The president might not be accepted, as in Vigario Geral for example, since he does not live in the community, and is not elected by the people but appointed by the drug-dealers instead. It is believed that since he does not live there and therefore does not know the community matters, he has no basis for making decisions and representing the community. As put by Cleaver (1999) it is beneficial for development policy purposes that there is one identifiable community, where consensus and solidarity prevail. Acknowledging the inequalities and conflicts would work against the solidarity model and could hinder the easy running of the project. Treating a *favela* as one harmonious entity could be another strategy to achieve cost-efficiency, but it will not guarantee long-term sustainability.

NGOs – striving for efficiency and sustainability

Although NGOs are seen as a solution for government failure they often fall into the same traps as public authorities. An IBISS worker who was involved in starting a recycling cooperative in Santa Marta involving the community said the following:

“It is important to work together with the community. We are going to make the work plan alone but then sit together with the residents of the community and discuss how the plan could be implemented. (...) I think that the community enters at this point into the process.”

A woman from Onda Azul who administers the recycling project in Vigario Geral said:

“The project was ready, just needed a community.”

This quotation show that the approach is to enter the *favela* with already defined idea or project. The Onda Azul who is administering recycling project in Vigario Geral is organising capacity building for the project participants. They are worried about lack of sense of ownership and passivity in terms of the project since they do expect the locals to take over the project when the sponsoring terminates. The project participants rather feel that the project belongs to the NGO and they are just employees. They understand that when the external financing of the project ends, they will find a new place to work. They do not believe that they can self-sustain the project alone. Some of the typical expressions used by the NGO workers, were: “we are going to put in their heads that their return is going to be cleaner community.” Or “we are going to put in their heads that it is their cooperative”. What catches attention here is the phrase: “we will put in their heads.” Seems like the residents are assumed to be like passive recipients or robots whose behaviour can be controlled just by opening their heads and pouring in enlightening wisdom. How is it possible to teach somebody when the problem is not visible for this somebody?

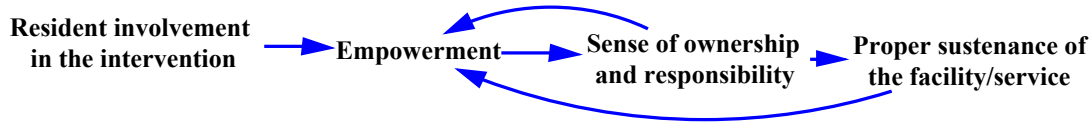


Figure 9: Participation leading to empowerment

There is somehow a conflict between the intentions of the NGO. On one hand they want the residents to feel ownership for the project in order to sustain itself. On the other hand they entered with a ready-made project, which did not involve the inhabitants from the beginning that could have facilitated the sense of responsibility and ownership. Participation in itself is believed to be empowering, independent of the activity engaged (Cleaver, 1999). Cleaver (1999) brings an example from the women's participation in water sector, which is considered both empowering and efficient. It is argued that women's contribution with labour in building water supplies is beneficial. Participation as such is presumed to be empowering, leading to sense of ownership and responsibility (Figure 9). It will result in successful sustenance of the facility. There is assumed that the individuals will take use of the opportunities that might be created for them by development projects to empower them. (Cleaver, 1999) However, as mentioned by Cornwall (2002) only by providing information or involving the people in implementation process does not have to result in empowerment, since there are relations of power that can act like constraining factors. In the case of the NGOs interviewed, an efficiency argument seems to dominate the empowerment goal. The aim is to make ensure that the people take over the project and sustain them. Empowerment is seen to be the result of implementing the project, information and developing management skills. However this might not lead to empowerment through that successful sustenance of the service or facility. First of all, the NGO entered the community with ready-made proposal, which meant citizen involvement only in the stage of implementation. Not including the residents since the elaboration of the project (in the early stage) may not build a good opportunity for empowerment or sense of ownership over the initiative. Secondly, there appears to be local power relations that could hinder the project participants to feel ownership and responsibility. Apparently, the person who is used as a facilitator of the project from the community does not live there anymore. Besides she has been in a powerful position already before the recycling project started, which has resulted in the other group members leaving the responsibility to her. Finally, there are wider structural factors such as the public authorities' top-down approach to the *favela* resident during the history, which has treated them as recipients of defined solutions or source of maintaining their power. By not taking these kinds of power relations into account the services will not be maintained by the locals.

However, other kinds of attitudes were also expressed. For example the workers of IBASE have acknowledged the importance of working together with the people not for them. They are not trying to bring anything ready-made but are trying to discuss and build together with the community. Their approach is to work rather with the demands of the *favela* inhabitants.

The NGOs and public authorities have acknowledged the need to involve the locals in developing the projects. The importance of providing capacity building and information is widely recognised.

However as was apparent from the fieldwork research, the attempts are very often limited by involving the inhabitants' in the implementation stage, but not involving them in the designing and elaboration process. Trying to understand local power relations and include the locals from the beginning would not be in harmony with the cost-efficiency and effectiveness of the goal. It is not that the power has moved to the people because of the government's empowering development programmes but rather because of the failure of the state (Curtis, 1995). Or when it has because of the government and NGO interventions it has moved to the people who are already enjoying power positions.

6.2.2 Community level

The theory suggests that people want to participate when they have been given an opportunity to do so (Midgley et al, 1986), either because of self-interest or because it is socially responsible and in the interest of community development (Cleaver, 1999). According to Mosse (1997) and Long (2001) these images of action are lacking historical perspective, they 'homogenise community' and have been accused for being often utilitarian (Mosse, 1997). Both of the models as suggested by Cleaver (2001) neglect the sophisticated picture of the real individuals and groups. The empirical data obtained from the two communities reveals that there are multiple factors that affect participation. People have their history, lived experiences and preferences, which influence their decisions. Besides, their strategies of action, their options and preferences are affected by the social, cultural, physical, political and economic contexts. In the case of poor people, participation has to do with lack of options, which increases their vulnerability to environmental as well as social shocks and stresses. Or it has to do with necessity determined by the immediateness of the problem. Through the empirical data I have chosen components that appeared to be most evident in the two *favelas* as potential motives behind individual participation or non-participation. In order to provide a better understanding of citizen involvement in waste management, I will bring examples how people have responded to shocks and how they have improved their lives in the past. Then I will analyse when and why participation is used as a strategy in waste management – in every day collection system and in collective action. Moreover, some components that are playing relevant role in affecting people's willingness to take initiatives will be analysed.

Historical perspective of participation

Walton (1998) identifies three types of collective action in third world cities. The categories are: labour, collective consumption and political and human rights action. Collective consumption action involves movements for gaining access to collective or public goods, such as land, housing, education, health and urban services, i.e. water, streets, sewers, waste, electrification). The action becomes explicit through invasions of land, squatter protest and street demonstrations (Walton, 1998). Susan Eckstein (1990) studied the community mobilisation in the Mexico City neighbourhoods when the government threatened to demolish the *favela* and remove the people. She witnessed vigorous and innovative movement for saving the neighbourhood. One of her conclusion from the study was that the economically and politically disadvantaged groups mobilise successfully for housing when they suffer from abrupt economic shocks, when they do not have choice to leave and look for personal solutions to their social dilemma. (Eckstein, 1990) Looking at the *favela* movements in history the residents' mobilisation has been in its peak before land invasion, regularisation of land titles and demand of urban services, such as water and electricity. According to local leaders in both of the settlements, everything that is there today was achieved because there was lots of participation by the residents.

The inhabitants demonstrated and made them heard, organised meetings, and knocked on the door of the government. It would not be right to talk about under-participation of the *favela* population.

As mentioned in the previous chapter the active *favela* movement in 1970-1980-s showed the capacity of both the communities to act collectively, to mobilise for manifestations against the removal, to demand public services from the government, to carry out self-help project where people helped one another to build houses, stairs, roads, the water system and other basic infrastructures. Activism in the two *favelas* has not disappeared. Both of the *favelas* are enjoying active organisational lives, which demonstrates itself in active cooperative movements and development of local markets. Santa Marta has active commission of urbanisation that struggles for the urbanisation project to upgrade the *favela*. Vigario Geral faced fast development of its organisational life especially after the tragic massacre in 1993. Now the community has its own health care centre, cultural groups, recycling project (initiated from the outside) and residents' association. As mentioned in the previous chapters there were hardly any initiatives taken in either of the *favelas* to resolve the problem of waste. In Vigario Geral there is a recycling project but it was brought to the community by the external NGO. In order to understand the lack of initiative and participation related to waste, it is relevant to analyse the reasons behind other initiatives. It would give an understanding to why there has not been a similar urge to act to solve the problem of waste, principally in Santa Marta. Looking at residents' participation only in waste related activities would give a distorted picture of participation. On the other hand analysing who participates and who does not and why in waste related activities contributes to the better understanding of the issue.

The way the *favela* residents and leaders explain the reasons behind the collective action is demonstrated in the following quotes. For example the leader of the Grupo Eco said the following:

“People will participate only when they have the understanding, have information or the thing affects him directly. In the *favela* is like this: when you are harmed, or the thing will harm you then you will participate out of self-interest, even if it is a collective action. What forces the people to participate in the first place is the defence of individual rights – your house, lack of water, or light. It is basic and primary.”

One male resident expressed his opinion about the incentives behind collective action like this:

“The inhabitants participate only when they feel on the skin that they will be removed. Nobody wants to move from here when they are forced to leave. Why the people are taking part in the urbanisation meetings? They want to know whose house is going to be dislocated. Everybody is very worried because nobody wants to be removed. That is why the population mobilises itself.”

According to these statements collective action takes place when people feel personally affected. A similar trend was observed during the execution of the *favela* upgrading project “*Favela Bairro*”, which started in 1994. One of the goals is to integrate participation in the operation of the projects. The reports demonstrate that people get interested in the project when the project has started and it directly influences their lives. (Riley et al, 2001) These personal problems experienced by a group of people in one point of time can bring the residents together for solving a common aim. As explained by Long (2001, p 56) collective actors should at least in one point of time share “common definition of the situation” or have an alike aim, interest or values and follow “certain course of action”. Clague (1997) brings an example from poor rural communities who are often threatened by starvation and who create arrangements to guarantee survival. He argues that people join solidarity networks to decrease the risk

from crop, illness or other accidents. People who are part in the solidarity networks to help others can count on the assistance of the others in the future. In the previous chapter I demonstrated the views of the people who have said that there are moments of solidarity independent of the existing differences. The inhabitants do help each other in the moments of difficulties, when they are in the middle of the hard times, for example suffering from drug wars, landslides, funerals and other hardships.

Fear of removal in the 1970-s was something that threatened most of the *favela* residents who lived in the squatter settlements located in the centre of the city. Most of them feared to be removed to the edge of the city, which could have meant decreasing living standards. On the other hand non-participation would have increased the probability of removal. The common threat brought the residents together to “save” the community. For example one female participant said that: “People are taking care of the community when there is a threat or interest... then they will say: our community!” On the other hand the self-help projects to build up community infrastructure and housing relied very much on reciprocal relationships. The inhabitants helped others knowing that the others will help them later on. However this mobilisation for building up the community could also happen for securing the place in the city structure and minimise the risk of removal. The examples indicate that collective action can be used as the last resort. It may not be at all as a common habit to solve everyday problems. Collective action or participation can be a livelihood strategy when there is no other choice.

Exclusion, lack of choice and immediateness

Cleaver (1999) argues that poor people often face limited choices. As described in the previous chapter the group of people in the middle and upper part of the hill do not have the choice to collaborate properly in the waste collection system. The reason for this as discussed previously is structural – lack of infrastructure, which is the result of the constraint created by the complicated topography. Besides the waste management in itself is not of good quality due to the lack of motivation by the waste pickers and earlier leaders of the resident association. The closest option is to throw waste on the drains, slopes and forest. As put by the local leader in Santa Marta:

“The dwellers are going to mobilise when it his immediate interest. Nobody keeps his/her waste at home. The people keep the garbage outside the house. He throws it to the stairs, he puts the problem far away.”

Non-participation can happen out of necessity dictated by structural constraints rather than being an act of choice. It was also discussed in the previous chapter that the accumulating waste can make some people more vulnerable to house collapse or environmental health hazards. The reasons behind getting involved with the collective cleanings are well illustrated in the following quotes. A community leader in Santa Marta expressed his opinion about participation in collective cleaning:

“The residents are participating in things that are convenient for him/her. When mobilisation for cleaning the drainage channels is called upon, which is a very tiring and complicated work, people who are living above the ditch will mobilise because they know that when the rain will come with high velocity the garbage will get trapped. As a consequence their house will collapse. He participates, not because he has high level of consciousness but because it is a necessity for him. Who lives far from the drainage area will not take part because does not have the motivation and interest.”

A woman who is living above the drainage channel that is continuously clogged with waste said the following:

“Underneath our house there is a enormous ditch that comes from the top. All the garbage that they are throwing passes here. When there are heavy rains and lots of waste is congested in the channel we have to enter there. Because when we would not do it we would run into risk. Because when rain would come, it can take the garbage and destroy our house. Because of this we should enter the ditch without any protection. We are not prepared for it but we have to do it.”

The quotes portray how necessity can be reason behind participation in the collective cleaning campaigns when the problem is immediate. The person might not have a choice not to participate or the resident knows that if he/she will not do it there is a risk that somebody from the family will get a disease or they will lose a house. People take an initiative when the problem threatens their assets, which are strategic for improving their lives. According to Moser (1998) these assets for the urban poor are housing and labour. According to Oliveira et al (1993) the works that do not bring immediate visible improvement in living conditions are left aside. As she argues this “immediateness” is an important factor that determines participation in collective cleaning campaigns. The quotes also indicates that a person having an experience from the past with the problem knows which kind of strategy he/she has to choose in order to avoid the problem in the future.

The experience with health problems caused by waste was also an indicator that made the people to take care of the waste. Nevertheless, the health factor was seldom mentioned. One of my assumptions before going to the field was that environmental health issues was a significant argument for people to get involved in collective action. Dengue carried by *Aedes* mosquitos, which is an important seasonal disease that likes to spread especially in place with lack of hygiene, and the problem of rats has become highly visible. Study carried out by UWEP (1999) in Senegal and Mali showed that unemployed youth demonstrated bigger enthusiams in getting mobilised in initiatives that guaranteed financial return. At the same time social objectives related to environmental protection for example did not provide a sufficient incentive for getting organised. Why is there so little willingness to act out of environmental reasons or to keep the community clean and guarantee better community health? Could it be the short-term thinking that is caused by the insecure tenure and the desire to leave from the community? The reasons could be also based on a lack of systemic understanding about the interconnections between the environmental hazards and health problems. When the *favela* dwellers were asked how waste disturbs their lives the common answer was that waste causes rats and mosquitos, and when the garbage gets clogged in the ditch it puts the residents into risk. Few people went further and named the health implications. However it can also be influenced by the way the questions were posed.

The study indicates that waste and its implications is an immediate need for a small part of the community. However commonly felt need is an important criterion for collective action to take place. Narayan (1997) describes a study that evaluated the effect of participation in 121 projects in forty-nine developing countries. The results showed that one of the factors that determined the success of the beneficiary participation was the need felt by the community. There must be a common interest that the community shares. (Narayan, 1997) The following idea told by the leader of Grupo Eco illustrates the role of a common need:

“Waste is not a visible problem today. Rats is a big problem because there is a enormous quantity of rats and they are more resistant than before. Today rats is a problem for most of the inhabitants. And it will start here, not because of the illness, but because of the fear that the rats create. Rats are on the stairs, enter the houses, and like this the problem comes closer to the citizens. This is something that mobilises people for action. What is important for everybody is visibe for everybody.

The problems should be made visible. It does not help when I think it is a problem. It has to be a problem for the people. When it is not, there will be no participation. When garbage provokes house collapse the problem will become visible for everybody.”

As illustrated in this quote and discussed also in the previous chapter the problem of waste remains often far from most of the citizens. As the leader stated: “it is not visible for all the residents”. Lack of access to water, gas and electricity as mentioned by the respondents would be the problems that would mobilise the dwellers. However it is interesting to note the attitude that unless there are visible consequences, nothing will be done for the problem. Instead of prevention, dealing with the consequences is still the main strategy.

Self-exclusion

Participation is generally assumed to be a good thing and is assumed to bring benefits to the ones who get involved. Non-participation is considered irresponsible. (Cleaver, 1999) Adams et al (1997) bring an example from an irrigation project in Kenya where it appeared that it has been more beneficial or habitually common not to participate. As pointed out by Cleaver (2001) both rational behaviour or unconscious practice influenced by social norms, routine, or acceptance of status quo can determine non-participation. Other factors that influence self-exclusion are time, opportunity costs and interest.

Trust, reciprocity and rules

In the previous chapter I started the discussion about social capital. As was described there are various definitions for this concept. Important for this discussion is the definition provided by Ostrom (1997), according to whom social capital is the shared knowledge, understanding, trust and reciprocity. The presence of these properties among the community inhabitants is considered to play significant role in the success in participation. According to Ostrom (1997) when there is a high level of trust between the residents they are willing to make commitments to each other and rely on reciprocal relationships. As illustrated in the previous chapter waste can be a source of conflict between the residents. Many research participants expressed that it does not help if they dispose the waste properly when their neighbour does not. When it comes to waste it can cause untrustworthiness and undermine reciprocity. The residents cannot be sure if the others will participate when they would. A man who lives by the drainage channel, which is continuously clogged with garbage, expresses his discontent with the situation.

“There was one confusion when I asked the neighbours not to throw their garbage. The neighbour tells that here is a ditch and throws. People are lazy. To throw on the path and to ditch is closer. The habitants know that waste can cause damage, but still they do not care. I tried to talk to my neighbours but it does not help.”

The statement shows that not everybody follows the rules created for waste management. However, rules, unwritten and official rules, corresponding to Ostrom (1997) play an important role in creating trust and reciprocity. According to her “rules relate to patterns of activities at several levels, from day-to-day operational activities that create and recreate the general patterns of authority in a society” (Ostrom, 1997, p.159) In terms of waste there are written and unwritten rules. Points to throw garbage are known to everybody. Besides the problems that waste can cause is a common knowledge. People do know that when they do not act according to the rules (unwritten or written ones) other people will run into risk. Nevertheless, when there is a collective action organised, only the ones who are at risk

participate. This can result in lack of trust and conflict between the residents. Ostrom (1997) recognises that things might go wrong. However experience with conflicts is a source of learning. The phrase “there was one confusion” in the statement above expresses the potential conflicts between the inhabitants. When the respondent was asked if he tries to invite his neighbours to improve the situation of waste, he said that he has tried but it only causes trouble. According to him, one cannot go and tell to the neighbour to act more responsible. Knowledge that has been created based on the past experience with conflicts that are difficult to resolve can lead the people to decide not to participate. People may prefer not to get into conflicts again.

Acceptance of the status quo – influence of the political structure

People’s experience with the external factors such as public authorities could have influenced their attitudes towards participation. When I discussed with the research participants the possibility of taking an initiative the answer that followed was often: ‘what will I get from it?’ Several local leaders were worried about this kind of attitude spreading among the residents. According to them thinking: ‘I am poor and I have to gain’, is quite common. The blame is put on the policies that the municipality and the government have carried out in *favelas* throughout the history. The leader of Grupo Eco explains why the residents are so driven by self-interest:

“Every one uses participation for his/her own favour or interest. The communities are used by the public power and NGOs or other group for manipulation. The *favela* dwellers can perceive that everybody have various interests in the game. Therefore he/she gets involved with something that is related to his interests, where he is going to gain or have some concrete return. Many habitants say: what will I gain with it? It is a big difficulty that the people are not able to live and think in the long term. The history of the relations with the groups and public agencies and their interests is based on the short-term thinking. During many years the government behaviour is to give promises but not to keep them. Groups are coming and going. They stay 2-5 years and then go. There is no continuity. The citizens know it because they have experience with it during their entire life-time – 50-70 years. The people know that the dimension of time is very relative. When you are trying to tell him: look, you have to look ahead because you will gain in the future... yes-yes.. and then he asks: how many years will it delay? The time dimension is a big challenge of participation.”

The quote illustrates *favela* resident’s experience with the external agents, such as NGOs and public authorities. The respondent does not consider the people to be just passive recipients. Although influenced by the policies addressed to *favelas*, the resident exercise their agency by making their own choices. The citizen evaluates his/her experiences and makes its own conclusions and acts upon them. Nevertheless the heads of the local groups say that it is difficult to mobilise the citizens when there is nothing to offer them. The assistentialist nature of the public policies is considered as one of the reason behind lack of participation. The public institutions are encouraging participation through money incentives. The NGO workers and local leaders think that because of these clientelist policies the people have become used to receiving things and do not learn to conquer them. Instead it is important to stimulate the people to conquer things by themselves. The workers of the NGO IBASE who have worked for years in the poor communities and have dealt with the capacity building of the grassroot organisations also commented on the issue of acceptance of the status quo. The assistentialist politics created a situation when the poor people have the habit of participating for demanding things that they need. They stay in a role of demanding what they need but without creating and building anything together. The coordinator of the recycling project in Vigario Geral has said that when the public institutions are distributing food packages in the community it is good to tackle the primary needs, but it does not create opportunities for the future. The project based approach that the public authorities are

often using in *favelas* is rather disempowering for the locals. As expressed by the worker of IBISS it will be a challenge to encourage the participation of the entire community in the recycling project. Not more than 25 residents will be employed by the cooperative and who will earn income. For the rest of the community it is necessary to find another incentive, for example cleaner environment or better health. This kind structural issues such as attitude and mentality are difficult to change and will require lots of time.

Opportunity cost

One cannot forget the extreme poverty experienced by some of the community groups. For them there is a high opportunity cost related to attending meetings and participating in collective campaigns. The following quotation will demonstrate the opportunity cost as a factor of non-participation:

“The people are poor, live in a *favela*. Have five people in a family. One of them works and the others are unemployed. The guy is full of problems in his head and thinks what to do: will I go to the meeting about waste??? He does not!”

As Moser (1998) argues, labour is the urban poor’s one of the most significant assets. While the key asset in the rural areas is natural capital, e.g. land (Farrington et al, 2002). The poor people in urban areas often work with several low-paid jobs at the same time, which gives them little opportunity to get involved with community affairs. On one hand they do not have the chance to express their voice and gain information from meetings, which was considered by the research participants the biggest motivation to get take part in the gatherings. On the other hand they will have more time for their own projects (Cornwall, 2002).

The responsibility of the others

There is evidence that the public goods are presumed to be the responsibility of the other. Besides, often there are a couple of leaders in the community who participate. The others count on that and will not get involved. Oliveira et al (1993) point to a tendency that collective consumption goods continue to be the responsibility or duty of the other, principally the municipality or resident association in some cases. Eyben and Ladbury (1995) provide an example from the study carried out in family planning programme how sometimes people do not want to participate. While the programme managers and staff assumed that the local community residents should participate in the planning and implementation process, the people did not think likewise. The residents thought that the functions were the duty of the government. They rather chose to participate passively and/or be represented by the community leaders. (Eyben and Ladbury, 1995) As argued by Cornwall (2002) the resident could also exclude themselves when the initiatives are ruled by the powerful groups and they see that they cannot have any influence or any share any of the benefits. This example shows that participation has an opportunity cost. Again it goes against the prevalent assumption that everybody wants to participate when they have the opportunity. When it comes to meetings or assemblies the residents may decide not to participate since they know that their voice is already represented by the elected people or somebody from their family or neighbour networks.

The presidents have been given the responsibility to carry out change. The interviews demonstrated that things would go well in the community where there is a good president in front of the residents’ association. *Favela* residents assigned the president of the association the responsibility of organising community life and solving local problems. Often when the dwellers were asked who should solve the

waste issue, the participants responded that only the association could do something. A man who is a waste picker in the *favela* answered the following to the questions 'how the residents should participate':

"The people do not have to do anything. Only the ones who are in front of the projects should do something."

As commented by one male participant:

"Association does not offer participation. The level of participation depends on the person who is in the association. If good president with good intentions enters, the things will improve. If not, the same thing will go on. (...) I went to the association and asked them to organise the cleaning of the ditch by my house, they did not respond. Then I cleaned by myself. Association does not resolve anything. They promise but not keep it."

A strong president is considered to be important for the local initiatives to succeed. The inhabitants give the credits for the improvements made in history partly to the strong president who used to be around. Many people memorised the good old times of Itamar, who used to be the president of the association. The presidents who came after him did not connect with the people and did not unite anybody. Some respondents mentioned there has not been proper leadership in the *favela* for 16 years. As discussed by Oliveira et al (1993) the 1980-s witnessed symbolic centralisation of the community struggles in the hands of the association president. In Santa Marta when the president has not been able to deal with the negotiations with the external agents, the local community groups have taken the leadership in their hand. The need to have one explicit strong leader as explained by Oliveira et al (1993) lies in Brazilian history of dictatorship. According to her the citizens and the society as a whole are still carrying with them the culture of autocratic traditions, where there is a necessity of identifying powerful leaders, saviors, who should save the poor people from their problems. These leaders are the reference of power. Their power is even more recognised the more efficient is their action and the more they are in contact with the residents. As argued by Oliveira et al (1993) the unsystematic presence or absence of the public authorities in the communities has created this situation where the local leaders are the last and only hope to the local people to remedy their needs. This kind of trend could have an adverse effect on the feeling of collective struggle and movement of popular participation. In terms of waste management there is a dilemma. When the responsibility of solving the waste issue is put on the president, who is not actually interested in dealing with it and the people themselves are afraid to take an initiative without the help from outside and waste management itself does not work, then how should it be solved?

Risk and power

There are various factors related to local power structure and local norms that influence the people getting involved in local initiatives. The field study shows that these factors are connected to risk and power relations.

Firstly, I will discuss the risk related to power politics. Drug dealing, the wars with police and rival gangs create uncertainty in the community. Besides it has been quite common that the drug gangs have had the control over the local residents' association. In Vigario Geral the president of the association is not elected by the residents but is appointed by the traficants. The following quote illustrates how participation is related to risk and power. A man who works as a waste picker in the community said:

“I could have the power to influence but I do not want. Anybody who wants could. We are running to risk. I do not want to take part in anything in here. There are restrictions. There are people who like to have control. I do not want to run into risk. I prefer to have no responsibility. Responsibility is expensive because you are compelled to do things. When you are not doing anything you are not demanded. Participation is risky and costly. Who does something is seen in the community.”

Another man who expresses the risk related to participation:

“It is not good to get involved in the *favela*. There is a risk. Have to obey. The drug-dealers control here. The drug gangs want to be in charge here and one has to obey. I would not like to get involved. Last time when there was a collective cleaning, who organised it were the traficants.”

As expressed by one of the leaders who was living in the community since the beginning:

“When the parallel power (the drug-dealers) is in power the people cannot manifest themselves. People just have to accept their decisions. The inhabitants do not know what is going on in the association. Today people have the fear to get involved.”

What these *favela* citizens say shows that there can be a risk related to participation. As the statements illustrate, collective cleaning campaigns can be organised by the drug-dealers. People choose not to participate because as they do not want to get involved with their business. The drug dealers are ruling in the community and people are cautious to get involved for example with resident association. This could decrease the trust between the residents. McIlwaine and Moser (2001) studied interlinkages between violence and social capital in poor urban communities in Guatemala and Colombia. The results showed that there was lack of trust and collaboration between the community members. The presence of drug gangs and wars with the police and other rival gangs contributed to insecurity, which resulted in social mistrust, lack of unity and fear. The people were complaining about lack of trust and unity. In Guatemala where the communities were less organised than in Colombia people were more hesitant to collaborate with their neighbours. The repliques that were said by the residents and that I heard often coming from the inhabitants of Rio *favelas*: “no one gets involved in the lives of the others” or “everyone lives their own lives”. A known norm prevalent in tRio urban squatter settlements is the ‘*lei do silencio*’ (law of silence), which rules the every-day lives of the *favela* dwellers. This norm is linked to fear. The constant fear implies that it is better to ‘keep your mouth shut’. Everybody sees and hears but nobody talks. This fear can result in the high level of individualisms and lack of reciprocity. (McIlwaine and Moser, 2001) Although the issue of drug-dealing is not the focus of this study, it is important to mention some of the implications it clearly has on people’s willingness to participate in communal activities. Drug gangs and the impact of their business on the local life is profoundly covered in numerous articles about *favelas*. Moreover drug-dealing is often a topic that attracts the attention of the citizens and therefore sells. However my intention is to turn attention to how the *favela* residents are embedded in local social networks and power structures that can influence the involvement in the community development. To live in a *favela* means following the rules of the game. Norms can be also an impediment for local development. For example one young man told me about his experience how he being involved with health project was offered help by the drug-dealer to distribute the medicines. According to local knowledge, accepting the favour of a drug-dealer will mean that in the future he may ask a favour from you. However, the ones who have had an experience like this, would avoid them in the future.

Secondly, risk can be also related to fear of being an initiator. The locals say that it is complicated to start a new initiative when you are from the community. The explanation of why is that people are afraid to make a mistake. They trust their own knowledge too little. They rather prefer to count on the external expertise. When the participants were asked what motivates them to participate and mobilise, one female respondent said the following:

“Nobody gives value to your initiative in here. When somebody comes from inside, everybody thinks that she/he is out of her mind. The initiative from outside is valued. The locals do not appreciate the other *favelado* taking an initiative. (...) At the same time we would not accept a president from outside. (...) We do not give credit to the person from the community because we think that we are all poor, but rely on the people from outside because they are from better conditions. People here think that outsiders have more knowledge and we are stupid. In our group of sewing we have a person who came to teach from outside, from another *favela*. When the person is not from here we accept her. When she would live here, we would ignore her. It is pride. We do not let the others from inside to teach us.”

The quote demonstrates how, according to local norms it is more beneficial not to take initiative. A newly elected president of the residents' association confirmed the idea. She agreed that the people inside have the fear of failure. Experts who come from the outside and who do not live in the community can fail because they do not have to continue living in the same place. According to her one should calculate seriously when you want to do something. However she is convinced that the local inhabitants are able and have the knowledge. It seems that even if there are people who could have ideas it is not easy to come out with them. It requires having a certain authority in the community already as president and resident association have. Or it could be related again to the strategy to avoid possible conflicts that are difficult to solve.

This chapter has looked into various components determined by local context and wider structural constraints or opportunities that play significant role in affecting individuals' participation in waste management and other community matters. However the discussion has not paid thorough attention to economic incentives, such as employment or financial motives. Nevertheless, the discussion that people are searching for assurance of benefits from participation, could demonstrate that economic incentives do play an important role.

6.3 Discussion and challenges to overcome

In the previous discussion it was shown that participation could be mediated by the individuals and formed by structures and social norms. Participation can be influenced by structural factors, such as the topography of the community and people's geographical location, and on the other hand by the policies that the public authorities have implemented in these communities throughout the history, including the removal strategy and patron-client politics. The local social relations and norms of behaviour, however are also shaping the actions of the residents.

This thesis attempts to avoid explaining human action merely through structural factors but tries to emphasise the role of the actor itself. Instead, it has been attempted to apply a more balanced approach as suggested by Long (2001). The balanced model does not consider human beings powerless, neither are they believed to be detached from their contextual environment and make decisions out of self-interest and motivation. As introduced in the chapter of 'Theoretical framework', human actors are considered knowledgeable and capable beings. As said by Long (2001) people have lived experiences

and the ability to act upon them (which he calls ‘agency’). As explained in the discussion above, sometimes individuals find it more beneficial not to participate. This can happen because of people’s lived experiences, their personal preferences or because of opportunity costs. It was illustrated above how the decision not to participate could be the outcome of past experience that some situations could create conflicts that are difficult to solve. The man who tried to mobilise his neighbours for a collective cleaning action and got into an unpleasant situation because of that, may avoid taking initiatives in the future. It is an example how the human actor based on the created knowledge chooses another livelihood strategy in the future in order to avoid conflicts. Participation includes opportunity cost. Some people, who are the breadwinners for the entire family, choose not to take part in the meetings that discuss establishing a waste recycling cooperative for example. On the other hand, people may not participate because there are already powerful people, like the president of the association, who have taken on the roles of an initiator. The others may feel that they would not have the power to influence decisions. However it is argued by following Long’s (2001) actor approach, that since people’s life-worlds and experiences are different, there is always unpredictability related to individual action.

Following the actor and structure framework, there is a risk with analysing human behaviour as determined by self-interest. This, as well as the structural approach, homogenises a community. Nevertheless, according to Ostrom (1997), policies and incentives in order to overcome social problems have been based on the image of self-interested individuals. The external incentives are based on the “single model of rational behaviour, which presumes a short-term, self-interested pursuit of material outcomes as the only mode of behaviour accepted by individuals” (Ostrom, 2000, p5). This approach assumes that communities are homogeneous and does not take into account the diverse contexts where the human beings are embedded in and the norms that they are surrounded by. It can exclude some groups from participation. As Long (2001) argues, there are multiple rationalities, needs, interests and practices. Moreover, Ostrom (2000) claims that some people pursue norms of behaviour, such as reciprocity, fairness and trustworthiness. In situations of collective action for accomplishing benefits or prevent damage, lots of people base their behaviour on trust or reciprocity. As discussed above, the community leader explained that the residents’ involvement in collective cleaning was with self-interest. However, this self-interest cannot be looked at as detached from a wider context. Behind this self-interest can be a previous experience with various environmental and health hazards contributed by waste, or it can be also a necessity imposed by various structural constraints. Furthermore, reciprocity and trust could have been the motives that drove some of the people to participate in collective action. These values are important to act for the community development and find solutions to community problems.

I have discussed that people are differently located, experiencing different living conditions and levels of vulnerability to environmental as well as social stresses caused by waste. It results in different needs and interests leading to unpredictability of human action. The history of *favelas* shows that participation in collective action has happened in the moments of threat. Moreover the study demonstrated that people do participate when waste is of immediate concern to them and threatening important household assets. How is it then possible to bring all these differences together to attain sustainability of waste management? It is recognised that continuous citizen involvement is necessary

in order to fulfil the following principles of sustainable waste management¹(Van de Klundert and Anschütz, 2001):

- All the citizens must have access to the waste management system to minimise the vulnerability to shocks and stresses;
- The waste management system should be adapted to local conditions as well as culture and should be able to sustain itself over time;
- Broad-based partnership between various actors, such as communities, public authorities and NGOs must occur;
- It should involve the interplay of all five dimensions of sustainability: social, political, environmental, economic and physical. (Van de Klundert and Anschütz, 2001)

The study has indicated that participation is not something that is there naturally in people. As was said by the NGO workers, there is no habit to participate. According to Ostrom (2000), public authorities with their short-term material incentives could crowd out the habit to participate. The study showed that the approaches of participation employed by NGOs or public authorities in *favelas* emphasise meeting material needs and instrumentality rather than empowerment. From this point of view giving an option to participate in implementing a waste collection system or recycling will not guarantee the continuation of participation and sense of ownership that is needed to maintain the service. First of all management system should reflect the specific needs and priorities in the local neighbourhoods. It should take into account the different problems of vulnerable groups and the types of external shocks affecting the households. According to Plummer (2000) sustainability depends on the sense of ownership, which is created through participation in all stages of the project cycle and not only in implementation. Thorough and constant work with participation is needed. Capacity building, awareness raising, education, information sharing and citizen involvement in decision-making will create opportunities for the future. Building a base for the differences to meet can promote mutual trust between residents, which is important for making a common effort to meet the challenges of the waste problems. Good urban governance at the community level as well as city level can play a crucial role in creating the base for building social networks.

On the other hand it is complicated to use long-term benefits as incentives with the groups of the *favela* population who struggle with immediate needs, like lack of shelter, unemployment or insecurity of tenure. Anschütz (1996) argues that provision of right incentives is important. In Kathmandu, Nepal the residents were convinced of the need of solid waste handling via lectures. However, the behaviour changed through the provision of containers and households' competition for the cleanest environment. In Philippines, the households were encouraged to recycle in source by providing them with proceeds of the sales of recyclable materials. (Anschütz, 1996) IBISS worker told about garbage purchase programme for disadvantage communities in Rio where waste was exchanged for free bus tickets or food parcels. Examples based on projects in Mexico illustrate how economic benefits can be more effect on behaviour of households than environmental education (Anschütz, 1996). According to Mikkelsen (1995) these above-mentioned educational, financial or technical solutions are used to remove operational barriers to peoples' inability to participate. In order to encourage participation, removing operational restrictions may not be enough.

¹ Under waste management is meant collection service and waste related projects

However, as the analysis and discussion about the fieldwork data has demonstrated there are structural barriers, such as local social norms, lack of accountability of residents' association, which act as barriers to participation. The study indicated that the residents were resistant to participate or found it rather beneficial not to get involved. Based on that lack of sustainability of the waste management system may lie beyond participation of the individuals. First of all, there is a need for improved urban governance at the municipality level as well as at the *favela* residents' association level. It should guarantee the representation of the various interest and responsiveness to different needs existing in the community. Furthermore it is important that both, the residents' association and the municipality assume their responsibility for carrying out the service. It has been demonstrated in the previous chapters that unreliable service can undermine the trust among the community members and their willingness to participate. The *favela* residents' association is paid by the municipality for carrying out the service. Behind residents' resistance to participate is often unwillingness to support corrupted local politicians, who get paid for not providing the service properly. However it should be noted that strong partnership between the municipality and community is needed, since community alone would not be able to carry out the service. From a systems perspective, solutions may lie there where they can be expected the least. Regularisation of tenure and transferring the land titles would provide the *favela* dwellers with secure tenure. It can create an enabling environment for the community members to have an incentive to improve their livelihoods and think more in the long-term. This process in Rio de Janeiro has started but it has been slow and complicated because of crime and drug trafficking (Allen and You, 2002).

As the discussion tries to demonstrate it does not depend only on the individuals to improve waste management system. There are wider structural constraints that can hinder local strategies.

6.3.1 Challenges to overcome - suggestions by the participants

The research participants recommended solutions that could enhance people's participation for increasing the sustainability of the waste management. Figure 10 (see page 44) is a summary of these suggestions given by the *favela* residents, CBO leaders, municipality officials and NGO workers to improve participation. Some of the proposals coincide with the ones that I have already discussed. According to Mikkelsen's (1995) models underlying participatory strategies, the suggestions have been divided into two categories: operational and structural.

Urbanisation/*favela*-upgrading project appeared to be the biggest concern of the *favela* dwellers. According to the leader of Grupo Eco, this structural improvement would be the main solution to tackle the *favela* problems, resulting in physical, environmental, economical, as well as social improvements. In some *favelas*, e.g. Vigario Geral, where the government has invested in infrastructure and physical upgrading, it has encouraged the residents to take care of their living environment and they have started to value cleanliness. Upgrading project includes also regularisation of the land tenure, which should give the people security for the future and would be a positive factor encouraging the residents to invest into their living environment. However, as argued before, physical improvements alone do not guarantee the citizen participation. People have their lived experiences and life worlds, which adds unpredictability to systems.

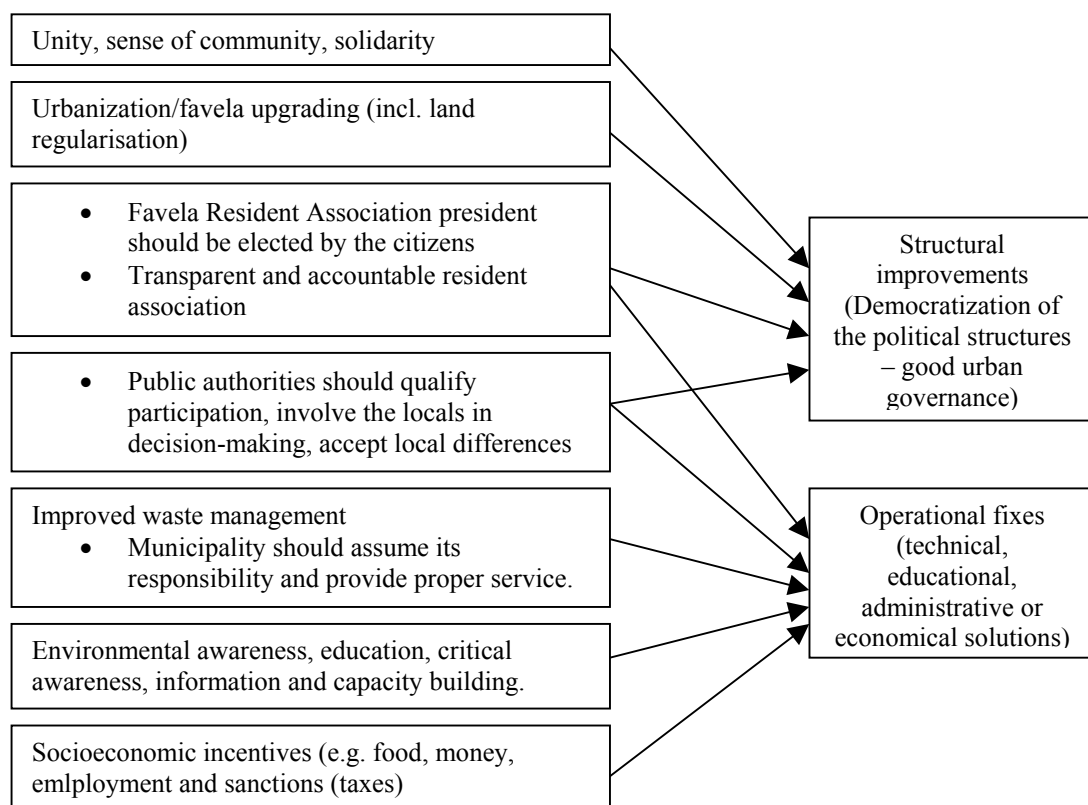


Figure 10: Research participants' suggestions for improving participation in waste management

VII CONCLUSIONS – CLOSING THE CIRCLE

Participation, as a livelihood strategy for waste management, is affected by individuals' lived experiences; life-worlds and preferences; and his/her constraining or enabling structural environments. Indeed, individual action cannot be looked at as detached from a wider context, neither is it determined solely by social norms and structure. Moreover a community is a heterogeneous unit, where its residents experience unique socio-economic, cultural and physical conditions, which determine the different needs, interests and values of the people. However the involvement of different needs in policy-making and programme/project development are often compromised for cost-efficiency. Ignoring the local differences can strengthen the voices of those already in power and disempower those who are supposed to be empowered; an effect that would undermine the aim of sustainability.

Based on a participatory approach conducted in two *favelas* in Rio de Janeiro, this study has highlighted some factors affecting participation as a livelihood strategy for increasing the sustainability of waste management. In this study, the immediateness of the problem for peoples' lives was found to be an important factor that influenced personal decisions about participation. The households that were more vulnerable to shocks and stresses caused by waste, appeared to be more willing to participate in the waste collection system and collective action. Waste and its implications, as the study showed

could jeopardise important assets for the households, such as health and housing, and undermine trust among the neighbours. Also, the historical perspective of *favela* movements demonstrates that participation of the community took place when there was a threat of removal, which implies that collective action can be a last-resort strategy and not an every-day habit. Therefore, participation can be less a matter of choice than a matter of necessity imposed by structural constraints.

The study revealed that it was sometimes beneficial not to participate, which resulted in self-exclusion. Previous experiences with waste and its implications could make the people not take any initiative in the future in order to avoid conflicts that may be difficult to solve. Furthermore, participation involves an opportunity cost. People have their lives and their projects, which means that often they are not willing or able to participate in community/extra projects. The study also showed that power and risk could be factors that result in self-exclusion of the residents. This was expressed by ascribing the responsibility for improving the waste situation to the president of the residents' association. The involvement of the residents' association with drug gangs has made the inhabitants wary about becoming involved with the activities organised by the association. The study also indicated that there was a correlation between the residents' location in the community and their participation level. For example, residential areas located at the top and middle parts of the hill in one *favela* turned out to be underserved, which left residents living there without an option to participate.

Participation as such, does not lead to a sustainable waste management system. It is something that needs continuous work in the form of education, capacity building and awareness raising. Moreover, a broad-based partnership between the community, municipality and NGO is important for a waste management system to be sustainable. Good urban governance, where both municipality and residents' association are accountable for their role in the service provision, would provide opportunities for individual participation. Furthermore, guaranteeing the *favela* dwellers a secure tenure is an essential factor that would give the power and the desire to local residents to carry out improvements.

Finally, it should be mentioned that the theoretical framework that was chosen for this study created certain challenges. For example, finding a balance between the actor and structure perspectives is difficult in that they are usually viewed as separate, noncommensurate views. The balanced view incorporated into this study sees actor and structure from a systems perspective, implying that they are interconnected and interdependent. However, linear thinking is still the basis of policies and development, which has affected our mindsets and understanding about the world around us. In order to provide sustainable solutions, this kind of one-dimensional approach should be left behind to allow holistic approach become a new way of thinking.

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Photo references

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Figure 2: Copyright Gustavo Larcher 1996. Retrieved November 26, 2003

Web site: <http://www.terravista.pt/bilene/1023/nova/BarDM.htm>

Figure 4: Copyright Krista Lillemets August 2003

APPENDIX

Personal communication with community leaders, NGO workers and municipality officials interviewed between July and August, 2003:

<u>Leaders of CBO Grupo Eco in favela Santa Marta:</u>	Itamar Silva and Josafa
<u>Community leaders in Vigario Geral:</u>	Joao Henriques, Elaine Eduarda and Ednilson
<u>IBASE:</u>	Nahyda Franca and Patricia Lanes
<u>IBISS:</u>	Nanko G. Van Buuren and Flavio
<u>Onda Azul:</u>	Vanini Lanzillotti
<u>Comlurb:</u>	Sebastiao Alves Netto, Andre Magalhaes, Lucia, Renato
<u>IBAM:</u>	Victor Zular Zveibil