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DONA MARTA COMMUNITY: SOCIO-ENVIRONMENTAL AND ECONOMIC CONDITIONS

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Abstract: Dona Marta community, part of the Botafogo neighborhood, south of Rio de Janeiro, suffered a disorderly process of urban occupation, which led to environmental degradation, resulting from strong urban densification. This study proposes to diagnose degradation, vulnerability, and urban risk in Dona Marta community, to suggest actions to minimize environmental impacts. However, he emphasized the waterproofing of the soil, the increase in critical areas for the occurrence of floods and landslides with the consequent socio-environmental impacts, he indicated the risk that the release of debris on the slopes represents for the population and contributed to visual degradation, requiring a greater presence of power public in the Community. The results showed that precarious housing conditions in occupations and peripheral subdivisions increase the urban infrastructure deficit; Its location in risk areas and ravines multiply predatory conditions for existing urbanization and its environmental degradation impact. Consecutively, the negative impacts of socio-environmental problems resulting mainly from the precariousness of services and the omission of public authorities on the population's living conditions, also omission reflexes of the residents themselves, point to the test of aspects of collective interest. Finally, given this scenario, the study concluded the need to rationalize land use in the region, in order to protect inhabitants against possible accidents and contribute to architectural enhancement and quality of life.
Keywords: Dona Marta Community. Socio-environmental and economic conditions.

INTRODUCTION

The causes that lead cities to degrade in certain areas of their public space are several and, among them, the living conditions of the population, poverty and abandonment by public authorities and the lack of basic services stand out. The role of the State, in this sense, has been vague, complex and often contradictory, which results in a rapid accumulation of vulnerability. The development project, conceived by some Western societies, has led to dissatisfaction among the population in relation to housing and living conditions, contributing to the growth of poverty, social exclusion, inequalities and the degradation of certain areas (Ramalho, 2010).

Degradation can be caused by the erroneous implementation of a development style that maintains the dissatisfaction of the needs of the majority of the population and drastically compromises the balance of the place where they are established, characterized by precarious constructions, without the supervision of an architect or engineer, inadequate structures and poorly finished, subject to collapses, landslides or landslides (Yunen,1997).

The accelerated way in which urbanization is taking place means that urban agglomerations grow in a disorderly and chaotic manner, with physical infrastructure, housing and services that are highly vulnerable. This conjunction further increases the degradation of certain areas and creates risky conditions for the population who, lacking basic sanitation, are exposed to diseases (Lima, Roncaglio, 2012).

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The accelerated form of urbanization causes urban agglomerations to grow disorderly

and chaotically, with physical infrastructure, housing and services highly vulnerable. This conjunction further increases the degradation of certain areas and creates risky conditions for the population who, lacking basic sanitation, are exposed to diseases (Ramalho, 2010).

In Brazil, urban visual degradation has become very present, since the degree of urbanization of the population, according to the Brazilian Institute of Geography and Statistics (IBGE), accompanied by the growth of poverty, has already exceeded 82%. Population projections indicate that, by the year 2020, the Brazilian population in urban areas must be 136 million, that is, 80% of the total population (Taschner, 1992).

The spatialization of contemporary urbanization is manifested in the large agglomerations of unfinished buildings, made of exposed brick, straw, or all types of waste, built outside the norms and without technology, which form "post-modern favelas" and which These are areas exposed to environmental risks recurrently and catastrophe scenarios (Davis, 2006).

Pereira and Nunes da Silva (2011) state that the association between poverty and population concentration is typical of third world cities, which allows us to characterize Brazilian cities in several aspects, among which we can mention the fact that a large part of the low-income population lives in clusters of sub-housing, precarious constructions, with a high number of inhabitants per housing unit, devoid of drinking water and health risk conditions (Machado da Silva, 2010).

Furthermore, the occupied areas are, in general, fragile from an environmental point of view; floodplain slopes, land close to polluting sources, high voltage networks, etc. They often occupy illegal land, or disregard land use legislation, which makes it difficult to implement public policies and provide basic services. The areas present a physical and social environment that facilitates the transmission of diseases. "Settlements are generally subject to violence, resulting from the lack of job prospects and income generation, as well as the presence of drug trafficking" (Neri, 2010).

The importance of the Dona Marta community and its socio-environmental and economic conditions is visible in the urban context and allows us to observe risk situations and potential disasters and affirm that there is a strong relationship between visual degradation and the creation of these pockets of poverty (Ferreira, 2011).

Urban areas, completely devoid of infrastructure, including housing, are the places where the largest percentage of the population is low-income. Associated with this, the lack of adequate public policies leads to a process of visual degradation of these locations, which directly affects the daily lives of families who reside and/or circulate there (Calderón, 2015).

This situation requires appropriate public policies for the implementation of adequate infrastructure, provision of basic services, control of violence, and implementation of measures in relation to other socio-environmental issues, to improve the population's quality of life. According to data from the IBGE Census (2010), there are 763 favelas in the city of Rio de Janeiro with 1,393,314 residents, of which 71 have Pacification Police Units (UPP). This work diagnosed visual degradation, vulnerability and risk in Dona Marta community and proposed actions to minimize environmental impacts.

The present study makes a diagnosis of the causes that involve the discussion about the style of development that maintains the dissatisfaction of the needs of the majority of the population of Dona Marta community and the drastic degradation of the location where it is located, due to the unplanned form

of urbanization., resulting from the migration of the population from other locations to large centers, and the invasion of some areas and urban spaces, which resulted in urban agglomerations, which grew in a chaotic and disorderly way (Burgos, 2015). These clusters present basic infrastructure services below what is necessary, with vulnerable housing, either due to the type of construction and/ or the locations they are located (community slopes).

The agglomeration of populations has led to the reduction of green areas, the release and accumulation of debris, especially on slopes. On Santa Marta Community, this situation is associated with excessive soil sealing and the multiplication of areas where floods and landslides occur.

This article aims to diagnose in the Dona Marta community: socio-environmental and economic conditions, vulnerability and risk in Dona Marta community, proposing actions that minimize environmental impacts. The specific objectives are expected to: demonstrate that, on the Dona Marta community, there is soil sealing and the multiplication of critical areas for flooding and landslides with consequent socio-environmental impacts; indicate the risk that the release of debris on slopes represents for the population, which contributes to visual degradation and suggests a greater presence of public authorities in the community (Cunha and Mello, 2011).

MATERIAL AND METHODS

FIELD OF STUDY

The theoretical basis of the research came from various sources of primary and secondary information about Dona Marta community, such as reference works, reports, specialized dictionaries, encyclopedias and articles.

In the diagnosis elaboration phase (subsidy), bibliographical research was carried out on the degradation of ethics and architecture in the urban environment.

DATA COLLECTION INSTRUMENT

The data collection instruments adopted in this research are described in table 1 below.

Data Collection Instrument	Universe researched	Purpose of the instrument
Interview	Interview with 120 residents, 34% between 32 and 42 years old and 27% between 20 and 30 years old (27%).	Assess the level of community awareness about visual degradation, vulnerability and risk on Dona Marta community.
Direct observation	The interviewees verified the effects of degradation	Understand the reality in which the community is inserted.
Documents	All documents on degradation found that allowed diagnosing visual degradation, vulnerability and risk on Dona Marta community were analyzed.	By reading and interpreting these documents, the diagnosis of visual degradation, vulnerability and risk on Dona Marta community will be more accurately defined.
Archived Data	Research in local bodies, such as City Hall, Residents Association, occupation projects and monitoring.	With the study, we intend to outline some parameters to minimize visual degradation, vulnerability and risk on Dona Marta community.

Chart 1 - data collection instruments

Source: Author's elaboration.

RESULTS AND DISCUSSION

LOCATION OF DONA MARTA COMMUNITY

The Dona Marta community is located on the sloping top of the community with a height of 365 meters, approximately 45 degrees of inclination. It occupies an area equivalent to 53,706m2, in the South Zone of the city of Rio de Janeiro and is surrounded

by the neighborhoods of Botafogo, Flamengo and Laranjeiras. Its main accesses are via Rua São Clemente, just after Praça Barão de Corumbá, before Rua Real Grandeza, towards the Center.

ORIGIN AND HISTORY OF OCCUPATION OF DONA MARTA COMMUNITY

The occupation of the area began, around 1940, by families who came mainly from the north of Rio de Janeiro and the south of Minas Gerais, the Paraíba Valley and Espírito Santo. In 1942, a migratory current increased the number of homes, until then still occupied by dense forest (Teixeira, 2011).

The community was built on a community with a steep slope and environmental vulnerability for residents.

In Dona Marta, the first Pacification Police Unit was installed on December 19, 2008, currently commanded by Captain Márcio Rocha. The UPP Social Forum, which officially marks the installation of the program, was held on October 27, 2011 (Teixeira, 2011).

SOCIOECONOMIC AND ENVIRONMENTAL INDICATORS

The data presented is the result of questionnaires carried out with the population that occupies the slope of Dona Marta community in Botafogo. In total, 120 residents were interviewed, 34% between 32 and 42 years old and 27% between 20 and 30 years old (27%).

As for the origin of the heads of the family, 70% said they came from the northeast; 20% were born in Rio de Janeiro, with northeastern ancestry and the last 10%, from the states of Minas Gerais and Espírito Santo. Referring to the level of education, the minority declared themselves illiterate (9%), 46% completed the first segment of Elementary School and 45% are studying or have completed the second segment. In general, the Dona Marta community uses municipal and state schools in the neighborhood.

The results of the field research point to low property prices, compared to values in the south zone of Rio de Janeiro, making this community attractive for people with low income.

Around 78% of respondents' families are made up of 3 to 5 individuals, who, together, have a family income between 1 and 4 minimum wages. When asked about the way in which they obtain their income, many responded that it is associated with activities related to commerce, such as bakery attendants, cafeteria workers, clerks, construction workers, general service professionals, cleaning professionals, doormen, production assistants in factories, exchangers and collective driver, among others.

Along these lines, 13% of those interviewed are domestic workers. It is worth remembering that many women lost their husbands during drug conflicts in the communities and alone take care of the house and children, with the help of Bolsa Família they supplement their income by working in family homes. Students representing 7% only have primary education and travel approximately 600 meters to go to the nearest school, with many giving up their studies to help their families, working informally. As for the collectors, who also represent 7% of the community's workers, they stated that it was an option to pursue this type of occupation as it does not require much education, nor does it require proof or an education test, just training. Doormen commonly work in upper middle class buildings in the south zone. Some reported living at their place of work and renting their house to a friend or relative who comes from other regions to make a living in Rio.

Dona Marta community partially benefited from the urbanization works service, when 64

housing units were built, the structure and aesthetics of another 225 houses already built improved. Also, a community social action center was built. The government's proposal was to do away with wooden houses, which still exist in the community, in addition to renovating those that were at risk. The State Department of Works of the Municipality of Rio de Janeiro also began the reforestation process, ensuring an improvement in quality of life.

Water supply to residences is provided by CEDAE (official and/or clandestine) in at least one room of each residence. However, the supply frequency is not ideal, possibly due to the slope of the land, used as a justification for the fact that water does not fall every day. Many homes use clandestine water taps, approximately 20% of whom live below the poverty line, which is equivalent to 975 people, of which approximately 6% live in destitution (260 people).

Regarding basic residential infrastructure equipment, 80% of those interviewed reported that they did not have a sewage system, leading them to discharge domestic effluents directly onto the slopes of communities and into the community's alleys.

Due to the difficulty in accessing the highest parts of the community, only 15% of those interviewed stated that garbage collection is carried out by City Hall trucks; 15% of the population puts trash in dumpsters, 15% burns it (a fact that has caused many fires in the forest and caused serious environmental damage) and 55% of the population throws their trash on the communities. It must be noted that collection in communities in the south zone, in general, is a problem related to the geography of the terrain, which is very steep. Around 3% of households benefit from the garbage collection service.

When asked about the causes of the main landslide problems and erosion processes present on the slope today, 67% attribute the problem to the practice of deforestation to build houses. Due to this, sewage flow in communities in the south zone is around 2% and 5% of households and of these, an average of 85% are connected to the network, many clandestinely. The absence of public authorities is also an important factor in environmental degradation on the slope of Dona Marta community, according to interviewees.

According to the community's inhabitants, there is a latent need for more information and ecological awareness among the population. The majority of those interviewed stated that the population would like courses on environmental education to be offered to acquire greater environmental responsibility.

Another concern of the local population is in relation to rocks, since when rains increase landslides, the chances of them reaching homes become greater.

As for the buildings, 75% reported that they have foundations and columns, and only 1% had technical assistance provided by an engineer, a family friend.

Most of the buildings are made of masonry, without slabs and unfinished. However, there are other old ones, in poor condition and with cracks.

The Urban Community Report reveals that there are no schools, health centers or social assistance. The México Municipal School, the closest to the Dona Marta community, is within a 500m radius, as are other services offered to the community.

Table 1 presents the solutions that the interviewees believe would lead to an improvement in the quality of life in Dona Marta community, according to the 120 (one hundred and twenty) interviewees.

Improvements	Total	Percentage (%)
Pacification (UPP)	41	34
Security (crime)	31	26
Access improvement	30	25
Structure and aesthetics of built houses	19	16
Solutions	Total	Percentage (%)
Water supply	28	23
Basic sanitation	38	31
Sanitary sewage	17	14
Trash on the slopes	14	12
Garbage collection	12	10
Lighting	6	5
Street Cleaning	5	4
Recreation Area	1	1
Perspectives	Total	Percentage (%)
Infrastructure	68	56
Improvement in healthcare	27	22
Environmental education courses	26	21

Table 1- Solutions to improve lives according to interviewees

Source: Author's elaboration

ENVIRONMENTAL DEGRADATION IN DONA MARTA COMMUNITY

The degrading form of occupation in Dona Marta community in Botafogo affects a large part of the slope on which it is located, which generates evident degradation of the landscape, in addition to putting the safety of the population at risk, especially during heavy rainfall events. Hence, the need to develop research focused on the consequences of this urban phenomenon.

According to the oldest residents, throughout the occupation of the community, the land on the highest part was occupied by the economically less favored population, being slower, accelerating in recent years.

It must be noted that, in the region, occupation far exceeded the limit of 53,000 thousand square meters, thus reaching the Environmental Protection Area (APA) surrounding the community. The occupation process on Dona Marta community was characterized by deforestation and the cutting of vegetation to make way for buildings.

In addition to buildings on sloping land, the large population of the area releases sewage from homes and everyday household waste directly onto the slopes of the community, which further contributed not only to the process of soil weakening, but also to visual degradation.

The above allows us to state that the unplanned occupation on the slopes of Dona Marta community resulted in several losses, not only for the population but also for the environment, which means waiting for reforestation projects and, as far as possible, containment measures of the occupation of the slopes, and the end of the favela's growth.

In the same way that issues relating to vulnerabilities are almost always assessed after accidents have occurred and victims have emerged. Due to these variables, it is often difficult to estimate or define the degrees of risk to which they are exposed, since the factors that lead to a tragedy, or the causes of these tragedies, can be variable and, sometimes, unknown (Rodrigues, 2014).

CONCLUSION

Dona Marta community is an integral part of the Botafogo neighborhood, south of Rio de Janeiro, and the less well-off population is the target audience for this community, where slum development occurred due to the rapid demographic growth of the municipality, coupled with inefficient policies public housing that also contributed to the less privileged people coming to occupy these rocky elevations.

Over time, forest cover was almost completely replaced by low-income buildings. In Dona Marta community, the slope is almost

completely taken over by urban occupation, with its unfinished residences and without any infrastructure.

Domestic effluents are released directly onto bare slopes, in addition to domestic waste, which causes the soil to become waterlogged and its corresponding weakening, resulting in possible landslides, damage to the environment and visual pollution of the City.

As a preventive measure, the need for constant monitoring of the occupation was observed, prohibiting mutilations of the land that could further affect the stability of the slope. In stretches of the slope, where natural vegetation has been removed, and which presents a high risk of landslides, it is interesting to use the implementation of a vegetation cover that is functionally similar to the original forest cover.

Therefore, it is necessary to rationalize land use in the region in question, in order to protect inhabitants against possible tragic accidents, in addition to obviously improving the aesthetics of the location.

Furthermore, it is also important that technical guidelines are established to provide adequate guarantees so that these areas are no longer occupied and the processes of instability are minimized.

Finally, it is up to the Public Authorities to take the necessary measures to avoid new occupations on the slopes of Dona Marta community.

REFERENCES

BURGOS, Marcelo Baumann. (2015), **"Cidade, Territórios e Cidadania".** DADOS, vol. 48, no 1, pp. 189-222.

CALDERÓN, Fernando. (2015), **"Governance, Competitiveness and Social Integration".** CEPAL Review, no 57, pp. 45-56.

CUNHA, Neiva Vieira da e MELLO, Marco Antônio da Silva. (2011)**, "Novos Conflitos na Cidade:** A UPP e o Processo de Urbanização na Favela". Dilemas: Revista de Estudos de Conflito e Controle Social, vol. 4, no 3, pp. 371-401.

DAVIS, M. (2006). **Planeta favela**. São Paulo: Boitempo.

FERREIRA, Sergio Guimarães. (2011), **"Segurança Pública nas Grandes Cidades".** Bacha e S. Schwartzman (orgs.), Brasil: A Nova Agenda Social. Rio de Janeiro, LTC, pp. 287-318.

LIMA, M.D.V., Roncaglio, C. (2012). **Degradação socioambiental urbana**: políticas públicas e cidadania. Disponível em: <ojs.c3sl.ufpr.br/ojs2/index.php/made/article>. Acesso em 03/03/2012.

PEREIRA, G.F.; Silva, M.S. (2011). **Pobreza urbana e degradação ambiental**: reflexão sobre o urbanismo de risco em Curitiba. XIV Encontro da ANPUR. 23-27 maio.2011. Rio de Janeiro-RJ. Brasil.

RAMALHO, D.S. (2012). **Degradação ambiental urbana e pobreza**: a percepção dos riscos. Disponível em: <www.ufcg.edu.br>. Acesso em 03 fev. 2012.

RODRIGUES, Maria Cecília P. (2014), **Ação Social das Empresas Privadas:** Uma Metodologia para Avaliação de Resultados. Tese de Doutorado em Administração. Rio de Janeiro, EBAPE/FGV.

TASCHNER, S. P. (1992). **Mudanças no padrão de urbanização**: novas abordagens para a década de 90. Rio de Janeiro: IUPERJ.

TEIXEIRA, M. (2011). **História do bairro**: Dona Marta community. Disponível em http://www.amabotafogo.org.br. Acesso em 10 de julho de 2011.

YUNÉM, R. E. (1997). **Médio ambiente urbano**: marco conceptual. Cuba, Puerto Rico, República Dominicana. Cuenca: SIAP.