



Urban Agenda Platform

The global platform for sharing progress, action and knowledge on the implementation of the New Urban Agenda to achieve sustainable urban development.

# I. Caravana Da Mata Atlântica

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| Region                        | Latin America and the Caribbean  |
| Award Scheme                  | Guangzhou Award  |
| Sustainable Development Goals | Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable |

## Summary

Caravana da Mata Atlântica is a participatory program that aims on engaging citizens on the planting of trees and create an ecological and sustainable culture in Salvador. It's an itinerant action in which a specialized team of the Sustainable City and Innovation Secretary (SECIS) develops and implement with a community, a group, students from a school or local inhabitants a landscaping, afforestation or urban garden project.

## Background and Objective

Salvador used to have all its territory covered with the Tropical Forest called "Mata Atlântica", which is considered one of the five most important biodiversity hotspots on the planet and function as a carbon sink of global importance. Nowadays it has very few reminiscent areas of the forest. The deforestation occurred without criteria or any type of control, motivated by the urbanization of the city and by an unsustainable economic development, which cemented existing green spaces and channelled the rivers. According with the National Institute of Spatial Researches (INPE) Bahia was the second state on the deforestation ranking in 2012. Besides causing the rise in temperatures, creating heat islands and affecting water resources, the deforestation of the city caused many wild animals to invade urbanized areas of the city, creating chaos or endangering either the lives of the animals itself or of humans. In addition, most of the areas with none or few green spaces and trees are usually inhabited by poorer and vulnerable communities, reinforcing the spatial inequality in the city. As poorer and vulnerable people, including kids and women, have lower access to green spaces or trees and gardens, they are exposed to warmer temperatures, due to heat islands, more polluted air and less natural areas for leisure. In order to revert this scenario the "Caravana da Mata Atlântica" was created. It aims to change the culture of its citizens by making them aware of the importance of preserving green spaces and of regenerating the environment, diminish the spatial inequality by planting trees and enhancing empty areas with urban gardens in schools and public spaces in poorer neighbourhoods. Caravana da Mata Atlântica aims firstly at increasing green spaces in the city by planting and distributing native seedlings in schools, parks, squares and creating ecological corridors. Thus its goals for the city is to plant 100 thousand trees and to requalify the gardening and afforestation of 56Km of streets, 260 public spaces, turning them into green spaces and create 7 new parks until 2020. Secondly, it also has the goal of implement environmental education initiatives, such as promoting environmental and sustainable education to kids and citizens, leading to a more sustainable lifestyle up to 2049. The leading partner is The Brazilian Network for the Mata Atlantica gave advisory technical support for the implementation of the project and the creation of the Urban Afforestation Manual. Ibama also is an important partner, which help us with the recuperation and control of Mata Atlantica' fauna and flora. Similarly, SECIS partnered with universities and colleges to help with the development of studies, for volunteering work and internships. To ensure public participation and increase the citizens involved in the project, SECIS made partnerships with many community groups and public- and private-sector organizations to do plantings, urban food gardens and afforestation projects. One of the main partnerships is with municipal public schools and the Education Secretary to plant food gardens and trees at the school with participation of the students. Other examples are the Hebert Daniel Foundation partnered with SECIS to increase the implementation of urban food gardens in public spaces, and Camisaria Souldilla was an important partner for a big planting event. Similarly, SECIS did a partnership with Bahia Viva Foundation to build a municipal park. SECIS spent US\$ 445,127.00 on the plantation of new trees and US\$ 24,226.00 on the maintenance of green spaces. There were also resources invested by partners, such as Camisaria Souldilla, which organized and invested on a planting event, and Hebert Daniel Foundation, which are not included and considered on the Secretary Budget. As mentioned before, Ibama and The Brazilian Network for the Mata Atlantica have given technical resources to help SECIS implement the Caravan. And similarly, the Catholic University of Salvador and the colleges Unijorge and Centro Técnico Irmã Dulce have deployed students for volunteer work and developed studies to help the project, giving SECIS human and technical resources.

## Actions and Implementation

Other cities can learn the importance of involving citizens in its initiatives and learn how to improve the initiative through feedback and data collected. Besides, they can learn that environmental policies can also help community building and strengthen a sense of community in certain areas

## Outcomes and Impacts



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The changes have been mostly local, at the municipal level. In these past 5.5 years of program, the Caravana da Mata Atlântica achieved 52,520 trees and the afforestation of 77km of streets and avenues and planted 385 trees in avenues and sidewalks around the city. It also produced eight urban food gardens, two orchards and five school food gardens. It also distributed 8,000 tree species from Mata Atlântica to citizens that plant them at their neighborhoods. SECIS has also been encouraging citizens to plant and preserve the environment and raising awareness of the importance of the environment with initiatives such as the distribution of the Comic Book “Sustainable Group” (characters, stories and comic books for kids that teach environmental issues). This is also helping diminish the financial loss of replanting trees destroyed by citizens, once more citizens take care of plants and are aware of its importance, they fight back against vandalism and deforestations themselves. Socially, a positive impact perceived was that in the places where the project has been raising awareness of the community and developed environmental projects with them, the plant replacement index has diminished to 5%, as opposed to being 40% in places where the project hasn’t been. In addition, the program will increase the equity between richer areas that are greener and poorer areas of the city, which there are fewer trees and green spaces, also improving the air quality and diminishing the temperature of those areas. A successful example was the environmental regeneration of an area that was an old dumping ground, where the SECIS planted 400 trees and partnered to plant another 15,000 in the next 4 years. Similarly, the Park of the City, which was abandoned and was a dangerous place to go, was revitalized, with more than a thousand trees planted there and become a family and community place to go, especially with 1,200 events being held there, which attracted more than 1,200,000 people. Both of these initiatives will help Salvador’s citizen to reconnect with nature and green spaces, and understand the importance of those places for the city and for their wellbeing. Besides counting the number of new trees planted in the city and of new green spaces, SECIS is also counting the number of trees that are vandalized or stolen and compares it with the previous years in order to measure the plant replacement index. This counting is done physically by its technical team. The Caravana da Mata Atlântica team also receives feedbacks from the work done with communities and schools, which helps them have a qualitative measurement about the program, that is complemented with newspaper, TV and magazine articles written about the program. To attain the desired outcome to increase the number of trees planted and of the creation of green spaces in the city, SECIS realized it could not depend solely on the annual public budget and went to look for partnerships with businesses and civil-society organizations. Businesses, associations, NGOs and community groups have dedicated more and more time and resources on projects with SECIS to plant trees, create new green spaces, build urban gardens and carry out afforestation projects. To fight vandalism and the theft of trees, SECIS developed educational methods to develop future generations that protect and are concerned about the environment. As mentioned before, the partnership with municipal schools include in the planting and food garden project, the inclusion of the importance of Mata Atlantica, the environment and sustainability subjects in classes, projects and extra-curricular activities. Lastly, the universities and colleges also help to raise awareness of the youth for the theme, not only by offering volunteering, internships and studies in partnership with SECIS, but also by increasing the discussion of the theme within the academic environment, with more degrees related to the area being offered on those institutions and the encouragement of the production of academic articles, researches and extension projects about the topic. The initiative and its intended changes and outcomes put Salvador as a leading city for the environment and climate change. As an example, the city was chosen to hold the 2019 Latin-America and the Caribbean Week about Climate Change. Similarly, there was deputies from other States that are demanding its mayors and governors to adopt similar projects. There is also a growth in the number of environmental start-ups in the city, related to recycling, circular economy, improvement of use of waste water and other potential businesses in the environmental area that were not explored before. All this will help put Salvador as the main city in Brazil when one think about environment, and even a worldwide reference, attracting sustainable businesses and start ups and increasing the quality of life of its inhabitants.

## Sustainability and Scalability

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable Target 4: Safeguard cultural and natural heritage Target 6: Improve air quality and manage municipal and other wastes Target 7: Universal access to safe, inclusive and accessible green and public spaces, in particular of women, children older persons and persons with disabilities Goal 13: Take urgent action to combat climate change and its impacts Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

## Initiative Contribution

The Caravan is taking place under the Municipal Policy for the Environment and Sustainable Development and the Urban Afforestation Directive Plan. By strengthening efforts to protect Mata Atlântica, which is considered one of the five most important biodiversity hotspots on the planet and function as a carbon sink of global importance, it aims on achieving ODS 11, helping the country to achieve the Aichi Biodiversity Targets agreed at the UN Biodiversity Convention and it’s in accordance with the Paris Agreement.

## Innovative Initiative

The initiative can be considered mostly evolutionary, but also revolutionary. When it first started in 2013, it was revolutionary because there was no initiative in Brazil where the government would involve citizens in the planting of trees and urban food gardens, whilst raising awareness for the importance of the environment and encouraging citizens to take care of those areas and trees they were planting. It can be considered evolutionary,



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because it evolved and improved, incorporating a Disk Mata Atlantica, a number any citizen can call to ask for seedlings or to arrange a planting in his neighbourhood. It also evolved to start encouraging people to take care of the areas and trees they planted and created, by “adopting” these places and by enabling watering cans to the citizens. And lastly, the development of a comic book on environmental education and sustainable actions is distributed to kids and has helped to change the culture and the importance citizens would give the environment in the city. The innovation is being applied in the design and implementation of the strategy. The design and implementation are participative, improving as citizens give feedback, as students develop studies about it, and as our technical partners give suggestions for improvement. It also evolves as SECIS measures the outcomes and can better analyse what is producing better outcomes and what needs to improve. The biggest obstacles are the low availability of financial resources, the socio-economic situation of the city and vandalism. Financially, even though the environmental budget increased in the past few years, it is still below what would be ideal. Therefore, SECIS is constantly looking for partnerships to maintain and increase the range of the Caravan. The socio-economic situation of the city, which still lacks basic infrastructure in some areas and has problems with its waste management, basic sanitation, adequate dwellings and high unemployment rates and social inequality, does not allow the prioritization of environmental initiatives and projects by the government. Those problems also make the environmental themes to become of lesser relevance for society, and thus there is some resistance on spending a high amount of money on initiatives such as the Caravan. Lastly, another obstacle is the vandalism and the theft of trees, which jeopardize some projects and existing green spaces, and inhibits people to plant or make their own landscaping projects and urban gardens

### Resources devoted to delivery

BASIC CITY DATA Population size: 2,953,986 Population growth rate (%): 0.63 Surface area (sq.km): 693.00 Population density (people/sq.km): 3.859.44 GDP per capita (USD): 4,872.78 Main source of prosperity: Services (tourism included) and trade  
<http://www.guangzhouaward.org/a/931.html?lang=en>