

## Climate Change – Colombo, Sri Lanka

### A fallen tree in Colombo makes way for effective tree management

#### Introduction

The Colombo Municipal Council (CMC) is the local government authority responsible for administering the city of Colombo, covering 37 km<sup>2</sup>. Colombo is the largest city and commercial capital of Sri Lanka, with a resident population of 650,000, and more than half a million floating individuals daily reaching Colombo. It stands as the largest city in Sri Lanka by population. The city, with its significant population and limited space, faces challenges related to congestion and infrastructure.

Currently, there are approximately 100,000 trees within the city limits, with most of them situated on roadside pavements and center islands.

On October 5th, 2023, an unexpected incident occurred when a tree fell on top of a bus in Kollupitiya at 4:30 am, resulting in five casualties. Numerous cases of fallen trees have been recorded, especially during nighttime. Another incident took place on December 14th, 2023, when a tree fell on Geogery Road around 10:00 am. Fortunately, no damage cases were reported.

Moreover, on November 8th, 2023, a day of heavy rain and wind, over 63 cases were recorded, predominantly involving fallen branches and four trees. Unlike other cities in the country, Colombo has a substantial number of trees. Additionally, the water level in Colombo is high, and all service lines are underground. Despite the increased precipitation compared to the previous year, the main concern contributing to fallen trees is their vulnerability due to size and weight, particularly during heavy rains.

#### About the project:

After the tragic incident on October 5th, 2023, the Commissioner of the Colombo Municipal Council engaged in discussions with various local departments, including the Forest Department and Environmental Department, to address and mitigate this issue. Dr. Lahiru, the former arborist of the Singapore National Park, conducted several meetings to share insights. Based on the collective knowledge



gathered, we identified weak points, and the following decisions were made as the first step.

- Prepare the tree inventory – the catalogue needs to include each and every tree's name, height, perimeter, approximate age, last inspected date, visual, and testing.
- Conduct routine inspections of every tree in the city between (6 months – 2 Years).
- Due to the vulnerability of most trees in Colombo city, it is necessary to investigate tree issues and perform surgery/treatment to protect them unless they need removal.
- Continuously engage in tree trimming/branch removal for risky trees.

## Project implementation

A tree inspection team was formed, consisting of an arborist, an environmental engineer, an engineer, technical officers, and supervisors. They surveyed 800 trees within 2 weeks on Main Street in Colombo, and a summary of their findings is provided below.

- Total inspected trees – 800
- Total removed trees – 227 (28.3%)
- Total trees trimmed / weight reduced – 344 (43%)
- Total healthy trees - 229 (28.7%)

## Monitoring, Evaluation, and Management

Utilizing our three tree teams, we initiated work in a high-risk area to ensure the protection of the inhabitants. However, it proved insufficient due to the need to attend to our daily tasks. Therefore, we sought support from a private party for the complete removal of trees. This component is currently under processing, and we plan to tender for the removal of 227 trees. Simultaneously, we have begun the preparation of the tree inventory catalogue, and discussions have been initiated with Open University, Sri Lanka.

## Learnings and Scalability

The Colombo Municipal Council employs 100 individuals in the Land Management and Environmental Development division, comprising the Director of Engineering, Deputy Directors, Engineers, Technical Officers, Supervisors, tree-cutting personnel (Labourers), Management Staff, and Surveyors.

We have established a training program for them and addressed their concerns. Through this, we realized that further studies are required for the staff to enhance their understanding. Additionally, we share the knowledge of resource persons during site inspections, educating on the importance of trees, how to grow a healthy tree, and how to protect it.

## Challenges Addressed

After the tragedy, people were scared and feared that all trees would fall. Since 90% of them are not straight and have an angle, residents believed that all angled trees would collapse. However, after our team conducted ground-level inspections, residents gained confidence in our work, and they now feel secure.

## Goals to Achieve

Normally, the Colombo Municipal Council receives 250 requests from residents and companies per month. However, the three tree management teams can only complete around 80 jobs per month, which is almost half the required quantity. According to the data, there is a need to double the capacity of our tree maintenance for a safe environment and a safe city.

\* 40 – 60 ft bucket truck = 3      \* 16" chainsaw = 6      \* 24" chainsaw = 6

Furthermore, there are no existing codes or manuals to follow or identify the tree status and timber work. Therefore, it is also crucial to prepare the code and manual for Sri Lanka specifications. In conclusion, we all need to engage in technical and knowledge-gaining work regarding urban tree management.