



# Bengaluru's “NIAGARA FALLS”



Lalbagh is a **240 acres (0.97 km<sup>2</sup>)** garden and is located in south Bengaluru & holds two flower shows and has over 1,000 species of plants with many trees that are more than a hundred years old.

The park has some rare species of plants brought from Persia, Afghanistan and France. It houses India's largest collection of tropical plants, has a lake, and is one of the main tourist attractions in Bengaluru. Lalbagh is also home to a few species of birds.

First planned and laid out during the rule of Hyder Ali and later adorned with unique plant species by his son Tipu Sultan, it was later managed under numerous British Superintendents before Indian Independence. It was responsible for the introduction and propagation of numerous ornamental plants as well as those of economic value. It also served a social function as a park and recreational space, with a central glass house dating from 1890 which was used for flower shows.

In modern times it hosts two flower shows coinciding with the week of Republic Day (*26 January*) and Independence Day (*15 August*). As an urban green space along with Cubbon Park, it is also home to numerous wild species of birds and other wildlife.





Now, Mini Niagara Falls adorn Lalbagh - visitors to the botanical garden can have an eyeful of the artificial waterfall with water cascading down a height of 25ft and width of 120ft.

The horseshoe shaped waterfall was built in 2017, which provides water to create the cascading effect.

The project was funded by the state horticulture department and the work is being executed by the Public Works Department.

The waterfall, which is being built on an existing rock cliff near the lake. These Pontoon mounted Submerged Centrifugal pumpsets are used to recirculate the water in the lake to aid its quality & also they have created an artificial Water Fall for Beautification purposes.

**END CUSTOMER** : Karnataka Horticulture Department

**PUMPSETS** : Aqua Submerged CF pumpsets

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## Salient O&M benefits of SubCF pumpsets

### Operational benefits :

- Requires No Special Pre – Post / Ancillary-Auxillary Operations (*like Suction Priming, Valve Opening- Closing, starting- stopping- monitoring Forced Water Lubrication systems operation, Dewatering Seepage/ Gland Leakage, etc.*)
- Requires No Consumables (*like Oil, Grease, Gland Ropes, Bush, Pins, Couplings, Sleeves, etc*)

### Maintenance benefits :

- Requires No Routine Maintenance (*like Oiling, Greasing, Gland Tightening, Gland Rope replacement, Shaft Alignment, Dry Run prevention, etc.*)
- Zero Maintenance Bearings are Greased for Life (*no need of subsequent re-greasing*)

### Space Saving :

- Is immersed directly in to Lake vide a Pontoon
- Minimal Noise, Vibration & Harshness – maintains Peace & Tranquility of the Park



### Bengaluru's own mini Niagara Falls at Lalbagh to be ready by January

By Rishabh B R | TNN | Updated: Nov 10, 2017, 08:53 IST

**BENGALURU:** Come January, a mini Niagara Falls will adorn Lalbagh. Visitors to the botanical garden can have an eye-ful of the artificial waterfall with water cascading down a height of 25ft and width of 120ft. The horseshoe-shaped waterfall is being built near the Lalbagh Lake, which will provide water to create the cascading effect. Trial runs are likely to be conducted within a fortnight.

The Rs 2.7-crore project, which is in the making for over a year, is funded by the state horticulture department and the work is being executed by the public works department.

"The waterfall, which is being built on an existing rock cliff near the lake, will be opened to public in January," said Chandrashekar M R, deputy director (Lalbagh), horticulture department.

"Apart from drawing visitors, the waterfall will help get rid of microscopic algae which have rendered the lake water greenish and are a threat to aquatic life. Untreated sewage and sediments on the lakebed are sources of nitrogen and phosphorus, which have contributed to exponential growth of algal cells. Excess algae in water prevents sunlight from entering its depths. Also, greenish water prevents birds from spotting and catching fish, because of which their numbers have come down in the lake's vicinity," said D N Ravi Shankar, member of advisory committee, Lalbagh, and the brain behind the project.

Ravi Shankar said the waterfall is a green project that seeks to improve the lake's flora and fauna by reducing algae without using chemicals.

"We will pump water from the western side of the lake to feed the waterfall located on the existing wetland on the eastern side. The water will later pass through the wetlands and return to the main lake through the connecting bridge. The wetlands will have floating plants like lotus and cattail, which will prevent sunlight from entering the water. Due to lack of sunlight, algal cells will die in the wetland portions. Dissolved nutrients like nitrogen and phosphorus will be consumed by existing plants and the water released into the main lake from the wetlands will be clear," he explained.

Sources in the horticulture department said they'll be using a 240HP motor to pump the water. "We are yet to decide on when and for how long to operate the waterfall. We may open it for an hour or two in the mornings and evenings. Depending on public response and on public holidays, we may extend the duration," said an official.

**FLOWING BEAUTY**

Height: 25ft, Width: 120ft, Project cost: Rs 2.7cr, Spread of Lalbagh Lake: 30 acres, Pumping capacity of motors: 240 HP, **BENEFITS PLENTY-** Yet another tourist attraction at Lalbagh, Clearer water due to removal of algae

## Double joy: Visitors to Lalbagh can now enjoy two waterfalls

EXPRESS NEWS SERVICE  
@Bengaluru

VISITORS to Lalbagh Botanical Garden on Wednesday evening were thrilled to see two waterfalls. Some were seen making videos and taking selfies at the site.

The officials from Horticulture Department have created two waterfalls in the existing three-acre lake. The mechanism is to recycle stagnant water in the lake by using artificial technology, which looks like a waterfall. Visitors can now enjoy the falls every hour, for a duration of 20 minutes. The falls will be, however, switched off from 10am to 11am, as according to horticulture officials, there is not much foot fall at that time.

Speaking to *TNIE*, Deputy Director of Lalbagh M R Chandrashekar, said the large waterfall was first created to recycle and treat stagnant water in the lake. It was started around two years ago, but was not switched on regularly. This was because of ongoing works at the lower end of the lake.



The waterfall at Lalbagh | EXPRESS

Now the mechanism has been designed in such a way that water from the large water body flows down like a waterfall and further flows down towards the smaller water body looking like two waterfalls. The department spent around Rs 1.8 crore for the large waterfall and Rs 50 lakh for the smaller one.

"By using technology to circulate water, the department has been able to restore the lake and make it a tourist attraction," he said.



*"An artificial waterfall is a water feature which imitates a natural waterfall"*

- Member of Advisory Committee, Lalbagh.



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