# Marvels Of An Era… Still Withstand

Posted on

From the Observation point… the reservoir and the backdrop of the rolling hills creates the perfect picture

***Rolling green hills stretched far into the horizon… blue skies speckled with white clouds glided overhead at times basking the area in sunlight… Amidst this splendid setting, rose the Victoria Dam, tall and resilient, barricading the emerald drops of the Mahaweli River.***

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Victoria Dam, the tallest dam in Sri Lanka, is located six to seven kilometres from the town of Teldeniya in the cool climes of Central Province. Rising a whopping 120 metres, the name of the dam as well as the reservoir is said to be derived from a waterfall, Victoria Falls, that

had existed at the very same location before the construction of the dam.

**Construction…**

The concept for Victoria dam was first conceived in the 1950's, under the Mahaweli Accelerated Programme, where the project envisioned to build six dams along the Mahaweli River. Hydroelectric power production and irrigation were the main purposes for this project, which did not come to pass until the late 1970s. Funding for the dam, which cost 9,800 million rupees, the design and engineering expertise were provided by the United Kingdom.

Accordingly the construction of the dam and the associated Power Station, commenced on March 23, 1980. And the most significant event of its history occurred when Her Majesty, Queen Elizabeth II graced the construction site—on October 24, 1981—to observe the progress. The completion of the project took five years, with the impounding being completed on April 7, 1984 while the dam was ceremonially commissioned on April 12, 1985 where Margaret Thatcher, then Prime Minister of the United Kingdom, graced the occasion as Chief Guest.

The consultants of the project were Sir Alexander Gibb & Partners who collaborated with the Central Engineering Consultancy Bureau of Colombo. Other contractors comprised of Balfour Beatty Nattall Joint Venture, Wheesoe Boving, UK and Balfour Kilpatrick—all from United Kingdom. As such looking at the dam, standing majestically 28 years after its construction, one could witness the brilliance that was put forth.

**Each spill gate is 12.1 metres wide and six metres high**

**The Great Wall…**

The Victoria Dam is built 300 metres below the point where the Mahaweli and Hulu Rivers converge. Upon looking into the distance—from the dam—one could clearly see the two rivers flowing into fill the breadth of the reservoir, which extends 23 km and 12 km upstream on Mahaweli and Hulu Rivers separately. The design of the dam is known as a double curvature arch concrete dam, formed using 35 blocks, with eight spillway gates—each 12.1 metres wide and six metres high—and two bottom outlets for cleaning purposes. Running along a length of 520 metres, the catchment area comprises of 1,891 $km^2$ while the gross storage capacity is 722 MCM—making the reservoir the third largest in Sri Lanka. Once the water level of the reservoir reaches the 438 metre mark, a pre-determined level, the spill gates are designed to be opened automatically, using an intricate network of

pipes. However, the gates can be opened through a manual system as well.

Another unique feature of the dam is its flexibility as it is said to expand a couple of feet as the water level rises. These movements are monitored by the diligent engineering team and other workers using a set of complex instruments housed within the dam itself.

From the side of the road that runs the length of the dam, one can reach the control station of the spill gates. Here brown hued pipes carrying oil at great speeds and control boxes positioned regulate the spill gates—numbered one through eight. They are numbered such that all even numbers are located on one side while the odd numbers on the other. As such when the gates open, gate one and two located in the middle opens first, while others are subsequently opened depending on water levels.

The floor of the dam on one side, where the bottom outlets are located, resemble a barren landscape. With the spillgates closed, one could observe the wobbly rocks that littered the valley below. Furthermore, clearly visible from here is the remnants of a bridge, in the form of two tall columns, that had been torn down to accommodate the Victoria reservoir.

A doorway, built to the wall of the dam at this location, leads one inside a chamber where the controls of the bottom outlets are housed while connecting tunnels lead to either ends of the dam. Passing through the tunnels, one could easily discern the different instruments such as pendulums that are used to monitor the deflections of the dam. Lighted by dim lights, one has to tread carefully. At one point, towards the right embankment, multiple steps could be seen leading up and down, to provide some ease for employees who constantly travel within Victoria to monitor its operations.

**Power Station…**

To the right embankment of Victoria Dam, one could observe the top structure of a tunnel, through which water is carried to the Power Station attached to the dam. As of now, this particular Power Station is said to be the largest hydroelectric power plant in Sri Lanka. The water carried thus are directed to three turbines at the Power Station, each generating 70 MW—210 in total—and is said to accommodate nearly five to ten percent of the yearly power needs of the country.

Located six to seven kilometres from the Victoria Dam, the Power Station presents a formidable appearance with transformers and a switch yard, showcasing the complexities involved in producing power. Seemingly constructed as two floors, once inside steps lead down where the ensuing noise from the turbines and other apparatus drowns out all other

sounds. Just witnessing the rapid rotation of the turbines are enough to make one in awe of all the hard work that goes into power generation.

**A Journey…**

Winding roads amidst beautiful vistas will bring one to the observation point where visitors are allowed to gaze and take their fill of the arresting panorama surrounding the Victoria Dam. Here information about the project and its initiation are also displayed to better inform the visitors of the beginning of the dam. Glimpses of a past where the construction of the dam was in full swing while the visit of the Queen and delegation added a sense of exoticism to the whole project, will take viewers to a time that is worth dwelling on.

**One could summon many a words of praise for the sheer beauty that engulfed the area**

Leaning onto the protective wall, encircled by the warmth of the sun rays, and looking down at the dam, its lush surroundings and the shimmering waters that stretched to far away cities, one could summon many a words of praise for the sheer beauty that engulfed the area. Directly below the dam, however, a small pool sparkled with dark green hued water, a stark contrast from the waters of the reservoir.

It is without a doubt that at Victoria Dam, breathless beauty and spectacular engineering co-exists, creating a realm that is almost other-worldly.