



Sands of Time

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THE INNOVATIVE SPIRIT OF JAMSETJI TATA

Jamsetji Tata was a visionary whose foresight transformed the course of Indian Industry. Profit, in his hands, represented the power with which to make further advances and to take Indian industry further along the road of development. The end was the good of the nation, its economic advancement, its prosperity.

He and his successors gave India its first modern iron and steel company -Tata Steel, the first modern hydro-electric power supply company - Tata Power and an institute for higher scientific research - the Indian Institute of Science. Each of these projects have grown stronger by the year and are landmarks in their own right.

Jamsetji's mind was wide-ranging enough to ponder simultaneously on schemes of varying magnitudes. A few of these minor interests such as the Tata Silk Farm, Cultivation of Fruits and Vegetables, Air-Conditioning, etc. are showcased in the Jamsetji N. Tata Mobile Exhibition which is currently touring the country. These projects bear testament to his innovative spirit.

These minor interests have been featured in this issue of Sands of Time. This issue will also feature the moving exhibition on Jamsetji Tata which was showcased in New Delhi.

Apart from Jamsetji Tata's major accomplishments, he had numerous minor interests. It was the profits from the Cotton Mills that helped Jamsetji finance various other schemes and make a major contribution to the economic growth and prosperity of the nation.

Norman Redford came to India as a child in 1899, when his father was Manager of the Empress Mills at Nagpur. He joined the Mills to control and assist in its purchases and subsequently became a Director. He had the pleasure of driving around in the evenings with Jamsetji

and what he recalled was: "The general topic of conversation was schemes, schemes and more schemes."

Some of the lesser known schemes that Jamsetji conceived and pursued included construction of artisan wells, cultivation and trade of various fruits and vegetables, a sericulture project, cultivation of Egyptian cotton, establishment of a shipping line, cooling systems, land reclamation schemes and numerous other ventures.

Artesian Wells

Around 1883, Jamsetji Tata was struggling to find an adequate water source on his estates at Navsari, Gujarat. In order to deal with this challenge, he decided to sink an artisan well in the area. The cost involved for such a



Jamsetji was very keen on developing artesian wells for the benefit of Indian agriculture.

project was very high and moreover, nothing of this kind had been attempted in the region before.

His initial attempts proved unsuccessful. However, some years later, he ordered the sinking of three other wells in the district and, this time, the results were positive.

On the success of this experiment, the neighbouring communities also took up the task of sinking wells in their villages. The equipment that Jamsetji had

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imported, were subsequently let out to complete these projects and people in these areas, were greatly benefited.

Jamsetji was very keen on developing these wells for the benefit of Indian agriculture.

Cultivation of Fruits and Vegetables

On his travels abroad, Jamsetji would always visit local markets with the aim of buying seeds of any new fruit or vegetable which he could bring back home. He was always on the lookout for new varieties that could be easily cultivated in India without any expert knowledge.

Within India, Jamsetji had several sites where he carried out these trials. He had an experimental fruit farm on the Beggar Bush Estate at Bangalore. He also attempted to revive the cultivation of the vine near Deolali and Poona. He acquired many acres of land at Dumas near Surat and some property on the Tapti River, with the objective of growing different species of grass for industrial purposes. Near his house at Panchgani, he acquired land for planting peach trees and certain nut trees which he had imported from California. The peach tree experiment however, wasn't successful. Jamsetji also bought several acres of land at Bhilad in Gujarat where he appointed an agent to develop a coffee plantation.



Jamsetji was always on the lookout for new varieties of crops that could be easily cultivated in India without any expert knowledge.

Jamsetji was also interested in the cultivation of strawberries at Panchgani. According to his nephew, Sir Sorab Saklatvala, Jamsetji believed that there was a great scope of increasing the strawberry crop in this region. He was also looking into

purchasing Tableland in Panchgani where he intended to build a jam factory and grow strawberries on the slopes of the plateau. This plan never materialised.

Egyptian Cotton

The Svadeshi Mills started by Jamsetji had been specifically reconstructed to spin finer counts of cotton for the eastern market. Jamsetji was looking into the cultivation of a suitable staple within the country instead of having to import the same from abroad at exorbitant rates. Long staple cotton was essential for the manufacture of higher class goods, as well as to meet the growing competition in greys, dyed and printed goods which were flooding the Indian markets.

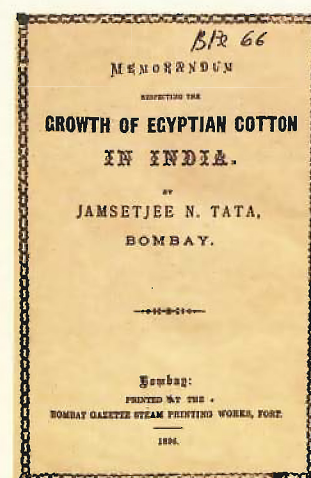
Jamsetji believed that growing Egyptian cotton would be beneficial for India as it would boost agriculture, trade of cotton industry in India and thereby improve foreign exchange. It would also conserve money which would otherwise be spent by the country on import of finer cotton.

Jamsetji had carried out an in-depth study on the cultivation of Egyptian cotton and on how best it could be grown in India. Although a number of people followed the instructions laid down by Jamsetji for growing this variety at the end of the 1890s, the results were less than satisfactory.

Sericulture

Jamsetji played a vital role in reviving the traditional silk industry in India by reorganising it on scientific lines. During his visit to France and Italy, he had the opportunity to study and observe the cultivation of silkworms. His visit to Japan in 1893, convinced him that scientific sericulture on Japanese lines, when applied to the traditional industry in India, would help accelerate its development. Moreover, as it was a cottage industry, it was well suited for India.

Jamsetji was greatly impressed by the Japanese model, which had adapted European methods of cultivation to suit conditions prevalent in the East. He was convinced



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of the feasibility of this model and invited Mr. & Mrs. Odzu, a Japanese couple who were experts in sericulture to supervise this project. Jamsetji imported the necessary raw materials and technology for setting up of the silk farm. The reeling machinery which was



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imported from Japan was found to be simple, durable, inexpensive and efficient.

As early as 1700's, there was a flourishing silk trade in the princely State of Mysore. This silk was well known and had often been

exported to Europe. The temperate climate around Bangalore, the then Capital of Mysore, which resembled that of Japan, was highly suitable for the rearing of silkworms. He was further encouraged by the support of Sir K. Sheshadari Iyer, the Dewan of Mysore.

The Tata Silk Farm was established in 1896 in the southern part of Bangalore.

An apprentice training school, one of the first of its kind in the country was setup at the farm. The apprentices were given instructions free of charge for a minimum course of three months.

The silk farm flourished. When the samples of raw silk manufactured by the Tata Silk Farm were submitted to European experts, they were declared the best that had been exported from India at that time. Encouraged by the reports on this experiment and after consulting Jamsetji, the Government of India soon established other silk farms on a similar basis.

However, after the death of Jamsetji, his sons Dorab and Ratan decided to dispose off the farm.

Nevertheless, the knowledge and techniques brought to India by Jamsetji changed the face of Indian sericulture and left a lasting impact on the development of this industry in India.

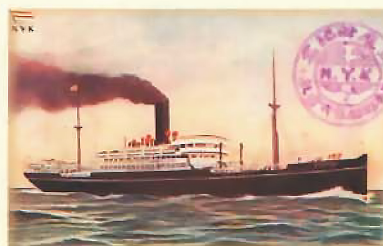
Shipping and Export

The Tata Line

The Peninsular & Oriental Steam Navigation Company (P&O) was a premier British shipping company that had a monopoly on the eastern shipping market. They charged exorbitant freight rates towards the consignments shipped by them and the mill owners in India had no other option but to use the services of this liner. Higher tariffs were levied on Indian goods in comparisons to foreign goods greatly hindered the growth of business.

Jamsetji Tata who had a large investment in textile mills was aware of the damage this monopoly was causing not only to his ventures, but also to the rest of the Indian manufactures in general. He strongly felt the need of India developing a shipping company of her own in order to transport goods to, and from India at rates benefiting the Indian industry.

In order to obtain better terms for shipment of goods, Jamsetji engaged the services of the Navigazione Generale Italiana, an Italian Line and the Austrian Lloyd who agreed to charge lower rates. However, these lines went on to forge an alliance with the P & O and collectively, these companies hiked their charges considerably.



Jamsetji chartered two ships from the N.Y.K. Shipping Company to be run by the Tata Line.

Jamsetji then approached the Nippon Yusen Kaisha Line (NYK), which was already a well-established shipping company in Japan; however, they did not conduct operations in India and China. On his

request, they were willing to compete with the larger shipping companies to trade in the Far East provided he agreed to operate ships of his own in this venture. Jamsetji who had already envisioned a shipping line for India agreed to undertake this venture and thus, the Tata Line was established in the early 1890s.

The fleet of Tata Lines comprised of four ships out of

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which the Annie Barrow and the Lindisfarne were chartered from England while the other two vessels were taken on rental from NYK. Jamsetji hoped that this venture would be successful and that this line would someday, not only own its own fleet but would also



The Lindisfarne was one of the four ships chartered by Jamsetji for the Tata Line.

have ships chartered under the Tata House Flag.

The flag was to have a blue background, printed with the words Humata,

Hukta, Huarasta, meaning Good Thoughts, Good Words, Good Deeds, along with the design of a gold circle, human hand with wire and pigeons' wings.

He had planned the operations of the Line in such a way that goods were constantly being transported between India, Japan and China. The rates charged were lower than those of the bigger lines and hence, attracted a number of clients.

The P&O and the other major shipping companies were not happy by this development as they began losing clients to the new shipping companies. In retaliation, they began lowering their rates and went on doing so until the charges levied for carrying goods were unreasonably low. At one point they offered to carry cotton to Japan free of charge.

Subsidised rates were offered to the clients only if they agreed to enter into an agreement that essentially barred them from sending goods to China, Japan and Bombay on the N.Y.K. and Tata Line vessels.

Although the Japanese Cotton Buyer's Association continued to patronise the Tata Line, it was the manufactures and clients in Bombay that deserted Jamsetji.

Jamsetji might still have continued with this venture, had it not been for the low rates being charged by the competition. The Tata Line wrapped up its operations and its ships were sent back to their owners.

The Nippo Yusen Kaisha line, however, benefited from this association with Jamsetji as it accelerated its entry into the Indian market. Their association continued to be one of mutual respect. Subsequently Jamsetji also resumed trade relations with the P&O shipping company.

Export of Mangoes

Looking for new ventures, Jamsetji weighed up the possibilities of exporting mangoes. Both Jamsetji and his father Nusserwanji had cultivated mangoes on their estate at Navsari on a relatively large scale. As there was no export trade, the country's entire mango crop was only sold in the local markets.

Jamsetji was keen on the introduction and sale of Indian fruits in the international market. In 1899 he started looking into the possibility of exporting mangoes and other Indian fruits from Bombay to London.

He was considering the use of empty cold storage vessels coming from Australia for this purpose. He also contacted the fruit importers of Covent Garden for marketing of Indian fruits. Jamsetji wanted the P&O



In 1899 Jamsetji started looking into the possibility of exporting mangoes and other Indian fruits from Bombay to London.

Company to arrange for transportation of five hundred tonnes of mangoes and other Indian fruits to London. However, on enquiry, he learned that the P&O Company had been experimenting for several years on

the best means of transporting mangoes but, without any success. Moreover, the cost for this was enormously high. As a result, Jamsetji dropped the idea of the exports scheme altogether.

Cooling Systems

Cold Storage & Refrigeration Facilities

Around 1900, Jamsetji put up a small cold storage plant for fruits and fish at Bombay. It served to increase the city's food supply. However, due to lack of public support the venture failed to continue. This project also

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motivated him to plan a scheme which involved the use of refrigerated wagons to carry meat and fish to the north of India and which, on the return journey, would bring back fruits for Bombay. However, this scheme was never implemented.

Air-conditioning

Around the same time, Jamsetji came up with an elaborate scheme for air-conditioning in Bombay.

He envisioned the construction of a circular building comprising of offices, concert halls, etc. at the site of the Prince of Wales Museum, Bombay (now the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya). Plans were prepared for a circular edifice, surrounding an immense ice-house, where the process of manufacture would cool the surrounding air and the whole building.

Although plans were drawn up for this project, it never saw the light of day. Jamsetji had also hoped that the Government would use this model and build offices for civil servants and barracks for troops so that they could stay and work in the plains throughout the year instead of migrating to the hills during summers. However, this scheme was also never taken up.

Jamsetji as usual, was way ahead of his time, for it was only decades later that air-conditioning become a reality in India.

Land Reclamation Schemes

Jamsetji had envisioned several schemes for the development of his beloved city of Bombay. During his lifetime, Bombay was undergoing a transformation from a town into a city and was fast becoming one of the greatest sea-ports of the world. Although roads, ports, buildings were being constructed in the main hub, reclamation and expansion work was carried out outside the actual area of the town. Though some parts of the island were above sea level, other parts were daily covered by tides, which on receding, left stagnant water

and vast deposits of mud. In 1860, the central part, though picturesque, was far from ideal.



Bombay – Colaba Reclamation.

With the aim of improving the infrastructure of the city, the Government as well as many prominent citizens of Bombay devised and proposed many projects that would prove beneficial for the city and its people.

The Back Bay Reclamation Scheme

This scheme proposed the reclamation of land from the section of sea from Colaba to Malabar Point. This area was nothing more than a heap of rubbish and was frequently under water. The Government was determined to pursue this project; however, it lacked the necessary funds and decided to assign the project to a syndicate of businessmen. Premchand Roychand played a key role in the development of this project. Jamsetji Tata and his father Nusserwanji were business partners of Roychand and were also investors in this project.

At the onset, this was one of the soundest and most promising schemes launched and was considered extremely beneficial for the city of Bombay. The Back



Bombay Back Bay 1870.

Bay Reclamation Company was registered by Premchand Roychand in 1863. The Asiatic Banking Corporation constituted by Premchand

Roychand, was appointed as bankers. Unfortunately, the Bank made some bad financial decisions. This combined with the unfavourable economic climate led to the failure of the Bank. As a result, the shares of the Back Bay Company shrunk considerably in value leading to bankruptcy and subsequent liquidation. The

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Government took over the land and reaped benefit of the work already done.

This was a crucial learning experience for Jamsetji as he experienced and observed how unsound financial decisions could hamper a promising project.

The Mahim River Reclamation Scheme

Jamsetji carried out experimental reclamation schemes in Anik and Kurla on a modest scale, and went on to propose a larger and elaborate project namely, the Mahim River Reclamation Scheme.



Mahim river and surrounding areas.

marshland around the Mahim Creek which were susceptible to flooding. The mangroves in the area were to be cleared and the land was to be transformed into a pasture ground for cattle. This was said to have multiple benefits as some bushes that thrived on salt water yielded the most valuable fodder for cattle, hence this would make the area a superior grazing ground. In addition, the pasture ground would help the health of Bombay by contributing towards keeping the malarial or unhealthy winds in check.

The scheme also proposed converting the Mahim Creek into fishponds. Jamsetji intended to stock these fishponds with white salmon, red mullet, prawns and other kinds of fish which were to be introduced and supplied to the Bombay markets.

Having put forth his terms, he requested the Government to do the same. Although this project was approved in principle, it was beset with a number of obstacles.

Although Jamsetji and later, his younger son Sir Ratan offered various solutions to these problems, it was not

until 1910 that the scheme received the necessary clearance. By this time, Jamsetji had passed away and although, Sir Ratan Tata was dedicated to the project it had to be indefinitely postponed as the resources of the firm were diverted towards the fulfilment of Jamsetji's other ventures which were of primary importance for the development of the nation.

Venice of the East

Yet another reclamation scheme that Jamsetji envisioned was the reconstruction of an area in Bombay which would resemble the city of Venice. The topography of Bombay comprised of low-lying lands, intersected by shallow creeks and was well suited for such a project.

Jamsetji proposed to reclaim five hundred plots of land of one acre each and surround them with canals with sluice-gates to maintain the sea at required levels. He selected the area of Juhu Tara which was one of the healthiest sites in the vicinity of Bombay with a beach of fine white sand that stretched for four miles. Jamsetji also proposed the construction of comfortable housing in the area, he was certain that such a suburb would attract a number of wealthy residents.

Although this scheme found favour with the District Commissioner and was adopted as a Government proposal, it went no further. This scheme was abandoned and remained as an unfulfilled dream.

Jamsetji Tata's creativity knew no bounds. He had what Matthew Arnold called "divine restlessness," he was constantly on the lookout for projects and ventures. When other men sought leisure, Jamsetji Tata seemed to seek work. No matter where he travelled, his mind was constantly observing, analysing and planning. His travel provided him with food for thought and although some of his projects failed, he never gave up. As a result, many of his schemes went on to become landmarks in the history of Indian industry.

JAMSETJI N. TATA EXHIBITION, NEW DELHI



The Jamsetji N. Tata Exhibition was held at Modern School, Barakhamba Road.

The Jamsetji N. Tata Mobile Exhibition which has been touring various cities in the country, was recently taken to New Delhi. This Exhibition, specifically designed for school (from the 8th Grade onwards) and college students, was first displayed at St. Xavier's College, Mumbai in February, 2015, followed by the J.N. Petit Technical High School, Pune in September, 2015.

Modern School, Barakhamba Road, New Delhi was selected as the third venue. The Exhibition was held from 7th to 11th December, 2015. Mr. Praveer Sinha, Chief Executive Officer and Managing Director, Tata Power Delhi Distribution Limited, inaugurated the Exhibition on 7th December, 2015.

Speaking on the occasion, Mr. Sinha said, "Jamsetji Tata was an industrialist, nationalist, philanthropist and above all a great visionary and seer from whose life young India can garner tremendous inspiration. We are hopeful that this initiative will enlighten young minds and will

motivate them to inculcate lessons from Mr. Jamsetji's life towards character building and nation building".

Dr. Vijay Dutta, Principal of Modern School, Barakhamba Road, stated that, "The history of the country is almost parallel to the history of Tatas, if I may say. They have contributed in so many fields like entrepreneurship, philanthropy and education. To talk briefly about the Tatas, it is the G.K. which will be enhanced of all the children in Delhi. It is very good of all of you to have brought it here in Delhi. The general knowledge would be enhanced,

upgraded which is very important for each child to know what this great personality Jamsetji Tata has done for the country."

Various Schools from New Delhi participated in the Exhibition. The event was also open to Tata Employees and their families. The total number of visitors over the course of the five days was 665.

Mr. Praveer Sinha, Chief Executive Officer and Managing Director, Tata Power Delhi Distribution Limited, inaugurated the Exhibition.



JAMSETJI N. TATA EXHIBITION, NEW DELHI



Mr. R.P. Narla, Archivist, TCA; Dr. Vijay Dutta, Principal, Modern School, Barakhamba Road and Mr. Praveer Sinha viewing the Exhibition.



Modern School, Barakhamba Road.



The Air Force School.



Employees from Tata Chemicals, Babrala.



Ramias School, R.K. Puram.



Modern School, Vasant Vihar.