Dedicated Freight Corridor Project (between Delhi and Mumbai) Special Steel Bridge Construction Project

【JFE Engineering Corporation、Gammon Engineers and Contractors Private Limited】

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Member : 16persons（JFE Engineering Corporation 10persons、Gammon Engineers and Contractors Private Limited 6persons）

In India, due to rapid economic growth, the volume of freight transport has surged rapidly, and strengthening transport capacity has become an urgent issue. This project involved the construction of two bridges located on the dedicated freight railway line of the western corridor (Delhi-Mumbai, total length of approximately 1,500 km), which is the most important network for strengthening logistics in the country where many Japanese companies have advanced. This was a critical project that strongly demanded early completion to avoid hindering India's economic growth, and it was a STEP project funded by Japanese ODA funds.

This project had to be operated under the impact of the "COVID-19," which caused the greatest damage around the world (lockdowns, site closures, shortages of oxygen cylinders and fuel, logistics stoppages, etc.). Amidst these unprecedented difficulties, what this project continued to strive for was the realization of both the Indian government's most important policy, "Make in India," and the export of Japan's "quality infrastructure."

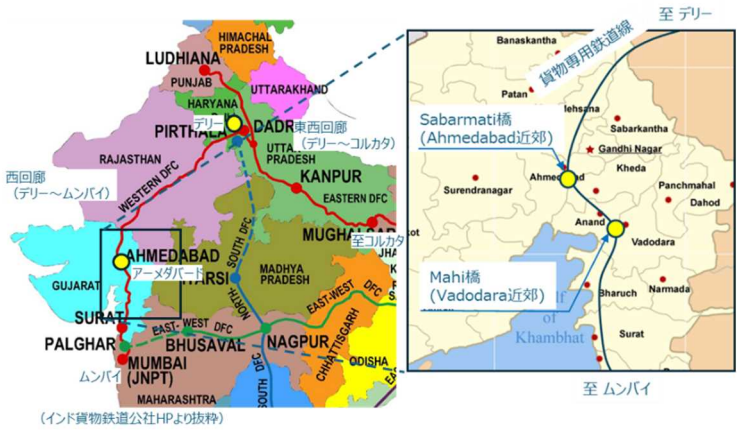
"Make in India," the most important policy of the current administration, aims to promote and strengthen India's manufacturing industry by attracting investment from around the world. In this project, not only did we form a joint venture with a Indian company (Gammon Engineers and Contractors Private Limited), but we also achieved procurement of design, materials, and construction from all over India, except for some steel materials.

On the other hand, by adopting the rationalized "composite truss bridge" structure, which has a proven track record in Japan, in India for the "first" time, we realized the "export of quality infrastructure" by providing bridges that are not only safe but also economically superior.

To achieve both "Make in India" and the "export of quality infrastructure," it was necessary not only to transfer technology to Indian staff to ensure "Japanese quality" but also to devise ways to assure "Japanese quality" with limited local resources. Technology transfer was mainly carried out through on-the-job training by Japanese engineers, and core Indian staff were selected and efficiently trained from design to construction planning to on-site construction. As a result, compared to similar overseas bridge construction projects, the involvement of Japanese staff was reduced to one-third. (Some core staff are now active in other projects by Japanese companies.) On the other hand, to ensure "Japanese quality," it was necessary to devise designs and construction plans that could guarantee "Japanese quality" with the limited local resources (materials, equipment, supplies, etc.), as training Indian staff alone could not realize it.

This project was operated with Japanese engineers dispatched on-site playing a leading and proactive role within the project team, realizing our country's high-quality standards, programme, safety management, and "Make in India." This was highly evaluated not only by the client, the Dedicated Freight Corridor Corporation of India, but also by JICA and other related parties, greatly contributing to improving the presence of Japanese companies in India.

Due to the above outstanding achievements and future prospects, this project deserves to be commended in the field of international contribution.



Project Site Location

Mahi River Bridge

Sabarmati River Bridge