



Tour Report for	– Japan
Subject	– Usage of Steel structures in Japan
Duration	– 26.02.24 to 01.03.24
Name of Employee	- Dinesh Kumar Choudhary, DGM (Engg)

Overview

- According to Ministry of Steel, Govt of India, 68% of the domestic steel is consumed by the building & Construction and infrastructure sector
- Governmental policies and investments are the major demand drivers for Construction Industry in India, the largest market for steel.
- National Infrastructure Pipeline policy announced in 2020, Government to contribute 78% of 1.5 trillion USD.
- Lot of dedicated schemes to ensure this spending like Gatishakti, Mass Affordable Housing, Nal se Jal, Bharatmala, Sagarmala, Smart City mission, Infra Corridors, DFCC, High Speed Rails, Metros, Udaan etc.
- Steady capital outlay on transport sector - railways and roads. Under Vision 2047 India to expand 45,000 km access control expressways from present 10,000 km.
- The focus on developing multi-modal connectivity including three dedicated railway corridors to de-congest the existing freight lines and enhance logistics efficiency besides high-speed railways in collaboration with Japan
- In view of above and increasing the usage the steel structures in India, the training was organized by Govt of Japan through AOTS - The Association for Overseas Technical Cooperation, Japan in Tokyo.
- The participants for the training were from various sectors of steel industry viz.. policy makers i.e. officials from ministry, Govt construction firms i.e. NHAI, CPWD & NBCC, leading Steel manufacturers i.e. SAIL, TATA Steel, Jindal Steel, Academicians from IITs, representative from BIS (Bureau of India Standard), INSDAG (Institute for Steel Development & Growth), CSIR (Council of Scientific and Industrial Research).
- The training created the awareness of all important steel contributors for their respective areas, the detail of participants is attached herewith as Annexure-1.

Training

Training was organized for 5 days including site and factory visits as follows:

Day -1

On the 1st day, a Lecture on Activities involved in developing the steel construction in Japan and overview of steel structures in Japanese construction market was given by Japanese counterparts. (copy attached)

Day-2

Lecture on Advantage and application of Steel Buildings and Lecture on Design and construction of cold formed square steel tubes was delivered on 2nd day of training. (copy attached)

Day-3

Visit to Hanwa Daisun Factory (Structural steel Stock keeping & processing company)

– This factory performs the role of stock keeping from original manufacturers and suppliers to fabricators. The factory has facility for small processing features as well, like make to fit size for direct dispatch to site, edge trimming etc.

Visit to Fab-Tec Japan Corporation (Structural steel Fabricator company) – This factory performs is used for the fabrication of columns, beams, diaphragms etc. which are required for the site as per design. The robotic welding equipment is being used by this factory to ensure the quality of welding and structural steel members. The site photographs are attached here with for reference.

Day-4

Visit to Takanawa City, Tokyo (under construction site.)

This is the construction site for divided in to 4 districts i.e. District-1 (Residence Building), District-2 (Culture creation building), District-3 (Complex Building II) & District-4 (Complex Building-I). These are high rise towers for residential and commercial purposes including the culture creation building as low-rise tower. Our visit was planned for District-3. The height of the tower was 166.86 mtrs comprising 31 floors on ground and 5 underground. This building will be used for offices, commercial establishments, fitness facilities, clinics, childcare support facilities, an energy centre, parking lots etc. The construction methodology used is top-down construction method so that the construction can be done in both the directions simultaneously. The soil below the ground level was retained by SMW wall i.e. Soil mix walls which are constructed by mixing soil with a stronger cement material, such as cementitious

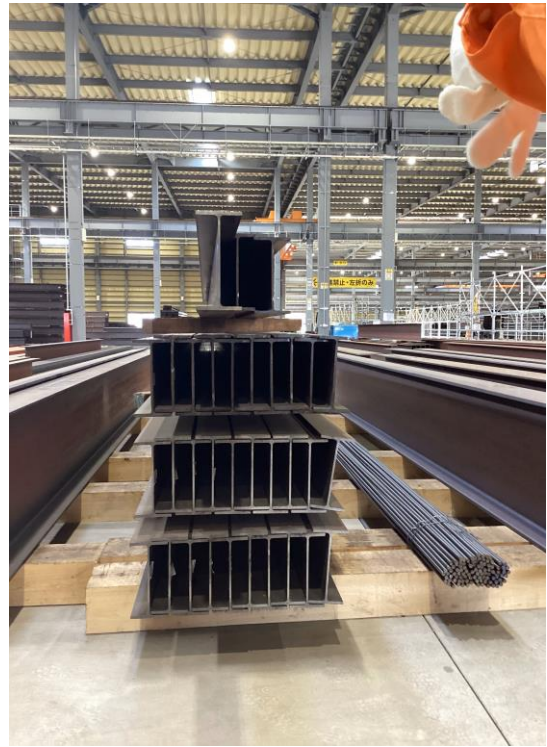
grout or bentonite slurry. As per structural design, the structure up to 2nd floor of building will be composite construction and above floors will be structural steel structure with deck slab.

Day-5

On the last day of training, the presentation was given by groups created by AOTS based on the participants from different sectors. The presentation was given on following contents i.e.

- **ISSUES THAT WERE IDENTIFIED PRIOR TO THE TRAINING REGARDING THE POULARIZATION OF STEEL CONSTRUCTION IN INDIA.**
- **NEW ISSUES THAT WERE IDENTIFIED AS A RESULT OF THE TRAINING REGARDING THE POULARIZATION OF STEEL CONSTRUCTION IN INDIA**
- **TRAINING OUTCOMES THAT LEAD TO SOULTIONS TO ISSUES**
- **MEASURES NEEDED IN INDIA TO RESOLVE THE ISSUES**
- **THEMES TO BE PROPOSED FOR FUTURE EXCHANGE ACTIVITIES WITH JAPAN**

Photographs – Day-4 visit





Annexure-1

List of Participants present during Training on Steel Structures,

AOTS-Japan – 26.02.24 to 01.02.24

1. Mr. Vishal Chauhan, Addtl. Secretary, Member, National Highways Authority of India
2. Mr. Amit Pankaj, Deputy Secretary, Ministry of Steel
3. Ms. Sudershan Mendiratta, Director, Ministry of Steel
4. Mr. Abhishek Pal, Scientist, Bureau of Indian Standards
5. Mr. Dinesh Kumar Ujjainia, Superintending Engineer, CPWD, Ministry of Housing and Urban Affairs
6. Mr. Dinesh Kumar Choudhary, Deputy General Manager, NBCC (India) Limited
7. Mr. Deepak Ranga Rao Chirravuri, Deputy Manager, Steel Authority of India Limited
8. Mr. Hardik Shrivastava, Head-Marketing, Tata Steel Limited
9. Mr. Prasad Ashok Sawant, Head- Design, JSW Severfield structures Limited
10. Mr. Shashank Sachdeva, Head – Marketing, Jindal Steel & Power Limited.
11. Mr. Pradip Kumar Mishra, Director General, Institute for Steel Development and Growth
12. Mr. Shiladitya Chanda, Institute for Steel Development and Growth
13. Mr. Siddhartha Ghosh, Professor, Professor, Indian Institute of Technology, Bombay
14. Mr. Mahendra Kumar Madhavan, Professor, Indian Institute of Technology, Hyderabad
15. Ms. Aparna Ghosh, Professor, Indian Institute of Engineering Science and Technology, Shibpur
16. Mr. Ashwin Kumar Pallikere Cheriya, Professor, Indian Institute of Technology, Roorkee
17. Ms. Prabha Prahalathan, Research Fellow, CSIR, Structural Engineering Research Centre
18. Mr. Sanjeev Singh, Professor, School of Planning and Architecture, Bhopal
19. Ms. Padmaja Gokaraju, Vice President, Kirby Building systems & Structures India Private Ltd.