As requested by the Sr. Manager, TISCO a visit was made by Mr. P K Choudhury - Principal Technologist of NJB to their destabilized Slime OB Dump at Central Workshop area, Noamundi, Jharkhand during 5-6 February, 2018 for site inspection and to advise solution of the problem, if feasible with the use of JGT. After studying the problem NJB advised TISCO to install 500 gsm OW JGT on the slope surface of Dump. Accordingly, TISCO procured initially 15,000 sq.m. JGT from Reliance Jute Mill out of total requirement of 45,000 sq.m. and started its installation as per the guide lines provided by NJB.

Further, as requested by Mr. V N Despandey - Sr. Manager of TISCO Sri Choudhury again visited Noamundi during 4-5 June, 2018 to observe the quality of work in progress. It was observed that the slope angle of identified stretch of 460 m of OB Dump was brought to about 45° with proper leveling and benching almost at the middle of inclined slope length of about 32.5 m. After applying a small dose of good earth on slope surface JGT was laid as instructed, properly anchored with a sideways overlap of about 10 cm. Top and bottom ends of JGT were also anchored in the trench dug for the purpose.

Although a boulder gabion of 1m x 1m x 1m size set with wire crate has been constructed at a distance of about 10m away from the bottom of the slope, no precautionary measure was taken as lateral restraint. It was advised to construct a small toe wall along the bottom line of the slope to avoid chances of lateral slide of slope particularly during monsoon. At some points of terrace gap was noticed between JGT and soil surface. It was suggested to fix the fabric with pegs or any other suitable means on to the ground to ensure intimate contact of JGT with the slope surface.

After installation of JGT dub grass seed mixed with good earth were spread on the slope surface followed by spreading a thin layer of vermicompost and watering for quick germination of grass seeds. Photographs of site were taken for reference.

On 5th TISCO celebrated the “World Environment Day” followed by mass planting of saplings where Sri Coudhury was also invited and had planted sapling along with them. Thereafter an Awareness Workshop was also organized where Sri Choudhury was honorable as special guest. During deliberation of speech, Sri Choudhury mentioned about the impact of using jute products to prevent pollution for a sustainable environment and appreciated the decision taken by TISCO to use JGT for stabilization of slime OB Dump under the guidance of NJB.

He also urged to use jute bag for growth of sapling in nurseries discarding usage of plastic bags. As the theme of this year was ‘Beat the Plastic’ the suggestion was well accepted by the Sr. Manager (Environment)- Mr. Despandey. Mr. Sarougi - Head of Operations also appreciated the concept and assured to implement the idea of using jute sapling bag under the guidance of NJB.

After the said programme, as requested by TISCO authority two other problematic sites of OB Dumps of Slime and Waste at Katamati Iron Mines, Odisha, nearby Noamundi was inspected.

The condition of 1st site was similar to that of Central Workshop Slime Dump having a length of 800 m and 9 m height (inclined) while the other site of Waste OB dump of size 200m length x 5m height (inclined) which contained waste iron ore, pebbles and boulders. Sr. Manager, Operation - Mr. Vivek Agarwal – In-charge of the site showed keen interest to use JGT at both the sites as suggested by Sri Choudhury. Total quantity of JGT required at these two sites were estimated to be around 20,000 m²

It was requested to NJB official by TISCO to provide them all sorts of technical support and guidance to execute the work successfully which was assured by Sri Choudhury on behalf of NJB. Photos of new sites were also taken for record.
Dressed & leveled slope surface of OB Dump
Laying of JGT on the prepared slope
JGT installed on the slope surface
Gabbion constructed along the toe of slope
Spreading of grass seed, vermi compost and watering
Dumping the sime at Katamati site, Odisha
Site inspection at Katmati with TISCO officials
OB Dump of Slime at Katamati, Odisha
OB Dump of iron waste, Katmati
Meeting at Katmati site office, TISCO engineers