MACCAFERRI

CASE HISTORY Rev: 1, Issue Data 06.11.2020

EROSION CONTROL AT BHAUPUR KHURJA RAILWAY

EMBANKMENT **BHAUPUR-KHURJA, UTTAR PRADESH, INDIA**

Slope Protection

Problem

EDFC-DFCCIL undertook a project along Bhaupur-Khurja section in Uttar Pradesh to release the increasing pressure on the saturated route of the North Central Railway between Kanpur and Delhi. The proposed embankment of the railway track had a slope of 1V:2H and required protection against soil erosion as the area was prone to average rainfall of 269mm in the month of August. The client had a concern to counter the erosion before the onset of monsoons along with promotion of vegetation cover.

Solution

Maccaferri has developed wide range of erosion control solutions that are applicable after judicious assessment of the slope angle and extent of erosion. To address surficial instability different combinations of biodegradable erosion control mats and hydraulically applied erosion control products were provided. High performance flexible growth medium (HP-FGM, MacFlex) and biotic soil medium (BSM) were sprayed based on soil along with grass seeds to germinate.

The selection of grass seeds and biotic soil medium was based on agronomic test of soil.

For railway embankment height more than 8m was protected with jute mate of 500 gsm and hydroseeding. For low height railway embankment (less than 8m) only hdroseeding was adopted.

Client: DFCCIL (client) / TATA-ALDESA JV (contractor) Designer / Consultant: Maccaferri Environmental Solutions Pvt Ltd

Contractor: Maccaferri Infrastructure Pvt Ltd Products used (Qty.)

- Biomac natural

1,00,000 sqm jute mat

Date of construction: 08/2019 - 11/2020





Photo 2: Site before construction







Photo 4 : Spraying of water





Photo 6: Growth of vegetation in 15 days



Photo 7: Grass growth within 30 days

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