Report on site inspection of construction of Rain Water Harvesting Tanks with the use of JGT at Birbhum on 28th and 29th August 2019

On advice of National Jute Board the Agri-Irrigation (A-I) wing and Mayurakhi Common Area Development Authority (MCADA) wing under water Resource Department Govt.of WB have undertaken total no of 34 (15 +19) projects in Birbhum district for construction of Rain Water Harvesting Tanks (RWHT) using JGT to stabilize the bank slopes.

As requested by the AE of A-I and the EE of MCADA Sri P.K. Choudhury- Principal Technologist of NJB visited Suri for inspection of the sites on 28th to 29th August 2019. The concerned AE and JEs along with the agencies accompanied the Sri Choudhury to the sites.

Out of 34 sites 5 sites were inspected and the following observations / recommendations were made :-

a) Each tank is constructed on avg land area of 6 acre with an avg. dimension of 120 m (L) x 90 m (B) x 5 m (Depth).

b) Type of soil is non cohesive in nature constituted with sand, murom, stone, stones clay (very less %)

c) 26 agencies have been engaged by the dept to construct the 34 tanks spread over different Mouza&Villages in the district of Birbhum situated at an avg. distance of 110 km from Suri.

d) Total quantity of 500 gsm OW JGT installed / needed for the 34 tanks was 1,69,349 m²

e) Number of tanks already constructed with JGT were not found in order in following aspects -
   • In some places angle of slope was more than 30° which appeared to be very stiff
   • Benching was not observed clearly.
   • Dressing and ramming of slope were not done causing rain cut, gully erosion etc.
   • Sideway overlap of JGT were much less than 100 mm in many cases resulting to uncovered slope surface
   • Pegging were done at an interval of 1500mm in place of 750 mm.
   • Neither grass seed was spread not any grass / other local species were planted.

In order to execute the work in appropriate manner demonstration on laying JGT was given at one site of village and MouzaMohanpur on 28.8.2019. Anchoring laying overlapping,pegging of fabric etc. were arranged to do as per standard method after preparing the slope at 2:1. Spreading of grass seed on slope surface was advised to carry out.

During briefing to the EE about the laps observed in workmanship, the EE requested Sri Choudhury to give an interactive presentation before the concerned engineers to update their knowledge. Accordingly, Sri Choudhury gave the presentation at their conference room on 29th August at 6pm where 23 engineers attended with immense interest.
The presentation covered properties of JGT, case studies with special emphasis on standard installation methodology for slope stabilization. Lot of queries raised by the participating engineers was addressed to their satisfaction.

The EE, Mr. Amitava Roy expressed his gratitude for agreeing to give extempore presentation and being convinced he declared that their unit will take up additional 16 new projects with the use of JGT very soon and will execute the work under the direct technical guidance of NJB.

PHOTO GALLERY ON SITE INSPECTION OF CONSTRUCTION OF RAIN WATER HARVESTING TANKSWITH THE USE OF JGT, BIRBHUMON  28 – 29 AUG. 2019 & INTERACTIVE PRESENTATION ON JGT AT MCADA, SURI

Block & Village - Makua

<table>
<thead>
<tr>
<th>Inspection of site</th>
<th>Eroded Slope</th>
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<tbody>
<tr>
<td>Block &amp; Village - Heerpukur at Barua, Gopalpur</td>
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<tr>
<td>Eroded bank</td>
<td>Eroded bank.</td>
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<tr>
<td>Block &amp; Village - Itkhad</td>
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<th>Eroded bank</th>
<th>Rain cut &amp; vulnerable bank</th>
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<th>Demonstration given by NJB in a tank at Block &amp; Village - Mahurapur</th>
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<tr>
<th>Inspection of fabric and preparation of slope</th>
<th>Demonstration of laying of JGT</th>
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Detail instruction given to the engineers & agency

Laying of JGT in progress

JGT laid by the Deptt at Nobason Pond, Nobason

JGT laid on slope

Defective way of Laying JGT
Workshop on JGT at MCADA Conference Hall, Suri 29.08.2019

Presentation on JGT

Interactive discussion