

**MINUTES OF MEETING REGARDING "PREPARATION OF HIGH-RESOLUTION DEM BY SURVEY OF INDIA IN AREAS IDENTIFIED BY SPMU FOR FLOOD MODELLING & REVIEW OF ACTIVITIES / PROGRESS OF NHP WORKS" HELD IN THE 1st FLOOR CONFERENCE ROOM OF JALASAMPAD BHAVAN, IRRIGATION & WATERWAYS DEPARTMENT, GOVT. OF WEST BENGAL, SALT LAKE, KOLKATA ON 22.05.2019.**

**MEMBERS PRESENT**

**A. Irrigation & Waterways Department (I&WD)**

1. Sri Arup Kumar Basu, Chief Engineer (D & R), I&W. Dte & Nodal Officer, SPMU, Bengal (SW).
2. Sri Tapan Biswas, Superintending Engineer, Inv. & Planning Circle No.-II, I&W. Dte. and Tender Implementing Officer, SPMU/Bengal (SW).
3. Dr. Abhijit Saha, Director, APPEMC, I&W. Dte. and Monitoring Officer, SPMU, Bengal (SW).
4. Sri Soumya Bhattacharya, Dy. Director, APPE & MC, I&W. Dte.
5. Sri Sunil Kumar, EE & TA to SE, IPC-I, I&W. Dte.
6. Sri Smarajit Sarkar, Executive Engineer, I&P Divn. (South), I&W. Dte.
7. Dr. Bibhas Ch. Barman, Dy. Director (Hydraulics), RRI, I&W. Dte.
8. Sri Manas Khan, Executive Engineer, EE & TA to SE, IPC-II, I&W. Dte.
9. Sri Sujoy Patra, Dy. Director, APPE & MC, I&W. Dte.
10. Sri Utpalparna Sengupta Sarkar, Dy. Director Advance Planning, I&W. Dte.
11. Sri Somnath Kundu, EE, Burdwan I&P Division I&W Dte. & DDO, NHP, Bengal (SW)

**B. Ministry of Water Resources (R.D. & G.R.), Govt. of India**

1. Sri Deepak Kumar, Sr. Jt. Commissioner, MoWR, RD&GR, NHP
2. Sri Rakesh Kashyap, Sr. Jt. Commissioner, MoWR, RD&GR, NHP

**C. Survey of India (SOI)**

1. Sri S.V. Singh, Project Director, Sol
2. Col S. Sridhara Rao, Dy. Surveyor General, Sol
3. Col Rajat Sharma, Dy. Surveyor General, Sol

**D. Central Water Commission (CWC)**

1. Sri J. R. Boro, SE(C), TBO, CWC.

**E. Technical And Management Consultancy (TAMC):**

1. Sri Santosh Kr. Singh, Procurement Expert, NHP, TAMC, Ernest & Young.
2. Sri Pravin P. Pote, Instrumentation Expert, NHP, TAMC, Eptisa.

The meeting started at 10:30 AM and was chaired by the Chief Engineer (Design & Research), Irrigation & Waterways Department, Govt. of West Bengal & Nodal Officer, Bengal SW, NHP.

At the onset, after brief introduction of the participants present in the meeting, a power point presentation on issues pertaining to requirement of High-Resolution DEM by SPMU for flood modelling was presented by Dr. Abhijit Saha, Director, Adv. Planning, Project Evaluation & Monitoring Cell (APPEMC), I&WD & Monitoring Officer, Bengal SW, NHP. Thereafter, the latest status of NHP works under Bengal SW was narrated by Sri Soumya Bhattacharya, Dy. Director, APPEMC and the following points were discussed in the house.

1. Dr. Abhijit Saha of SPMU, Bengal SW described the need of high-resolution DEM for flood modelling in West Bengal. He presented the final optimized areal extent of DEM/DTM required for West Bengal as 7,325.972 sq.km. with vertical accuracy within 0.5 m using LiDAR technology & 16,567.351 sq.km. with 3.0 m vertical accuracy. TOTAL requirement:  $7,325.972 + 16,567.351 = 23,893.323$  Sq. Km. All identified parts were lucidly presented in maps.
2. Subsequently, the issues related to entrusting this work to Survey of India (SOI) were discussed as SOI is already executing such activities on behalf of NPMU/CWC in the flood prone areas of India. SOI has recently finalised the bidding process and executed contracts. Mr. Rakesh Kashyap, SJC and Mr. S.V. Singh desired to know whether the areas projected by West Bengal for preparation of DEM/DTM are in addition to the areas already covered and whether these areas are contiguous to the areas being covered by SOI for NPMU. Dr. Saha confirmed that the areas identified in the presentation were in addition and contiguous to areas already awarded to SOI. For working out exact coverage of areas, the shape files prepared by West Bengal were shared with SOI.
3. Sri S. V. Singh, Project Director, SOI wanted to know whether the areas identified had international borders. It was informed that some areas were along the international borders.
4. Sri Rakesh Kashyap, Sr. Jt. Commissioner, MoWR, RD & GR, Gol, NPMU. NHP informed that the prepared DEM of SOI would not include the river bathymetry and such work, if required i.e. bathymetric survey would have to be done separately.



5. Sri Kashyap assured the SPMU that the case for preparation of DEM as per additional area identified by West Bengal would be taken up by NPMU for approval of competent authority and methodology of getting the work done by SOI would be firmed up from NPMU's end shortly.
6. It was informed that the final output of DEM in all possibilities is expected to be available after 18 months.
7. Sri Tapan Biswas, Superintending Engineer, IPC-II, I&WD & Tender Implementing Officer, SPMU, Bengal SW informed that SOI Kolkata were contacted from his end to take up the work of establishment of reference GTS datum adjacent to the proposed 56 RTDAS stations of West Bengal.
8. Col. Rajat Sharma, Dy. Surveyor General, SOI informed that the matter was sent to HQ of SOI for necessary directions as such type of works are undertaken as deposit works.
9. Sri Kashyap, NPMU informed that since SOI and West Bengal both are IAs under NHP, it would not be possible to make payment by one IA to the other IA. He further intimated that since other IAs would also face similar problem, SOI would be approached from NPMU for establishing the whole gamut of GTS BM of all the RTDAS stations conceived by all Implementing Agencies (IA) throughout the country. Accordingly, Sri Kashyap and Sri Singh, SOI agreed to sit together at a later date for getting the mechanism in place so that the said work can be awarded to SOI. Therefore, necessary action will be taken up by SPMU after getting the outcome of the meeting between NPMU and SOI.
10. Sri Soumya Bhattacharya, Dy. Director, I&WD presented a list of Procurement Plans (PP), already approved in earlier years which required revised approval due to increase of estimated cost.
11. Sri Kashyap, NPMU suggested that in case enhanced cost is within PIP allocation the matter needs only intimation to NPMU, after which necessary modifications in STEP needs to be done and submitted for approval.
12. Accordingly, it was agreed that the matter would be intimated to NPMU by mail and Sri Deepak Kumar, NPMU expressed that the matter would be taken up early from his end.
13. Sri Biswas, SE-IPC-II & Tender Implementing Officer, SPMU informed the house that for SCADA works, necessary BoQ was prepared considering individual PLC/RTU for each gate instead of forming group of four gates and submitted to NPMU. However, NPMU stressed upon the issue for making group of four gates in one PLC/RTU, as implementing in different States of the Country.
14. As regards the development of State WRIS, Sri Kashyap, NPMU informed that framework of State WRIS is under preparation. It is expected to be completed by December this year. Content building & customization can be done by the IA after its finalization. However, in the mean time IA can work on the spatial layers being shared by NPMU and should also work on firming up the contents.
15. Dr. Barman, Principal Investigator of two Purpose Driven Studies (PDS) & Dy. Director (Hydraulics), River Research Institute, I&WD requested for process of engagement of consultant for PDS work. NPMU officials detailed out the possible methods like Advertisement through web portal, requirement of minimum three CVs formation of a Selection Committee, negotiations with the best candidate, and finally to sign a contract as specified in the procurement manual. Other services may be procured through operational mode & purchase of instruments may be made by shopping mode as per limits specified by the Procurement manual.
16. Engaging consultant for Benchmarking study was discussed. Sri Deepak Kumar informed that necessary guidance towards bid document preparation would be provided by TAMC. He suggested taking up the work of Basin Atlas activity in the revised AWP.
17. Regarding floating of Bids of SCADA at Durgapur, RTDAS and Velocity Radar, the matter was discussed and it was decided to float the Bids as early as possible, maintaining prevailing norms & procurement manual guideline.
18. It was informed by Sri Biswas, SPMU that the indent for fund towards 1st tranche has been sent to NPMU by mail.
19. On enquiry by Sri Bhattacharya, SPMU, Sri Deepak Kumar, NPMU informed that revision of PIP within a Component can be prepared and presented to NPMU for approval and the same would not take much time for approval. However, if revision in inter component allocation are necessary, the matter would take more time and can only be taken up during mid term appraisal of the project.

The meeting ended with the vote of thanks to the Chair.

  
Chief Engineer (D&R)

Irrigation & Waterways Department, Government of West Bengal  
& Nodal Officer NHP/Bengal (SW)