

Minutes of 10th meeting of the Sub-Committee on System Studies for identification of most appropriate alternative Plan held on 03.03.2017 at New Delhi.

The tenth meeting of the Sub-Committee on System Studies for identification of most appropriate alternative plan was held on 03.03.2017 at Sewa Bhawan, CWC, New Delhi under the Chairmanship of Prof. P.B.S. Sarma, Chairman of the Sub-Committee. The list of participants who attended the meeting is given at **Annex.-I**.

Prof. P.B.S. Sarma, Chairman of the Sub-Committee extended a warm welcome to the participants of the meeting. He informed that he had gone through the report on Hydrological Studies and Multi-Reservoir Simulation for the proposed Mahanadi-Godavari link prepared by NIH and also compared this report with earlier version of the report. He had pointed out some minor errors in the report to be corrected appropriately. He indicated that the issues such as effect of Climate change etc. have been indicated in the report, but these paras need to be included in the report more clearly, though such information can not be precisely quantified. He however, suggested that a small note could be included that their effect can be reflected in the value of “delta” for the purpose of simulation studies. He then requested Shri K.P. Gupta, Director (Tech), NWDA and Secretary of the Sub-Committee to take up the agenda items.

Item No. 10.1: Confirmation of the Minutes of 9th Meeting of the Sub-Committee on System Studies for identification of most appropriate alternative Plan held on 30.08.2016

It was informed that the Minutes of the 9th Meeting of the Sub-Committee on System Studies for identification of most appropriate alternative Plan held on 30.08.2016 were circulated to all the members vide letter dated 09.09.2016. No comments have been received from any of the members. As such the minutes of the 9th meeting of the Sub-Committee were confirmed as circulated.

Item No. 10.2: Follow up actions on important decisions taken during the 9th meeting of the Sub-Committee of System Studies

The information given in the Agenda Item was noted by the members of the Sub-Committee.

Item No.10.3: Hydrological studies including water balance and multi reservoir simulation for the proposed Mahanadi-Godavari Link

It was informed that Hydrological Studies including Water Balance and Multi-Reservoir Simulation have been modified by NIH, Roorkee duly

considering the suggestions of the sub-committee. They have re-submitted the report to NWDA which was circulated to the members along with the agenda of this meeting. A detailed presentation on the revised report was also made before the Committee.

Chairman of the Sub-Committee enquired from the representative of the Odisha Government about the views/observations of their Govt. on the revised report. The representative of Odisha informed that the report has been received by Odisha Govt. few days back only and indicated that the view/observations of Odisha will be sent soon. The Chairman of the Sub-Committee felt that the view/comments of Odisha may be considered by NWDA at DPR stage. The report of NIH was discussed in detail by the Sub-Committee and by and large agreed by Sub-Committee. It was decided that NIH, Roorkee should include the following additional information in the report and resubmit the final report to NWDA:

- (i) Due to increased use of Surface Water for irrigation, ground water recharge will increase considerably and more ground water will be available for irrigation use and other purposes. NIH representative has mentioned that the quantification of ground water recharge is not in the scope of present study however, Sub-Committee decided that this aspect should be suitably incorporated in the report.
- (ii) As per the simulation study carried out by NIH Roorkee, the link time and volume reliabilities are 0.515 and 0.739 respectively, for transfer of 12165 MCM water through M-G link (without considering MSTG water). In this regard NIH should clearly mention through a small paragraph in the report that at 75% success rate how much water and in which calendar months can be transferred through Mahanadi-Godavari link without considering MSTG contribution.
- (iii) The surface water to be made available for irrigation use and other purposes through this project need to be appropriately priced. This will help in increasing the water use efficiency. A mention in this regard should be included in the report at suitable place.
- (iv) Due to advancement in the technology in the future the irrigation application efficiency will be increased and more area can be provided irrigation with the available water. This may be suitably incorporated in the report.
- (v) Due to change in land use, cropping pattern and also climate change effect, the rainfall pattern may undergo change, this issue should be mentioned suitably in the report.

It was decided that the NIH Roorkee should include the above information and incorporate the suggestions made, and resubmit the final report to NWDA in a fortnight. With inclusion of above information the Sub-Committee accepted the report.

The sub-committee also noted that the total existing utilisation for irrigation in Mahanadi basin is about 20500 MCM, which has been developed over a period of more than 60 years. The projected use for irrigation considered in the study is about 23700 MCM. With possible increases in water use efficiency, improved efficiency in irrigation application , new varieties of crops, etc, this estimate appears to be too conservative.

Item No.10.4: Any other item with the permission of the Chair

The Chairman of the Sub-Committee mentioned that Dr. D.K. Srivastava, Member of the Sub-Committee-II has so far not participated in any of the meetings of the Sub-Committee. As such, he should be replaced by a suitable expert. He suggested the name of Dr. S. Mohan , Professor, Department of Civil, Engineering , of IIT Madras, to replace Dr. D.K.Srivastava, as a member of the sub-Committee-II.

NWDA officials mentioned that replacing a member requires approval of MoWR, RD & GR for which they will initiate action after obtaining approval from DG, NWDA.

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

List of Participants to the 10th meeting of the Sub-Committee for System Studies for identification of most appropriate alternative plan held on 03.03.2017 at New Delhi.

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| 1. | Prof. P.B.S. Sarma
Former Prof. (Emeritus) IIT, Delhi | Chairman |
| 2. | Prof. Kamta Prasad,
Chairman, IRMED, Delhi. | Member |
| 3. | Shri M. Illangovan,
Former Chief Engineer, CWC | Member |
| 4. | Dr. Sharad K. Jain
Scientist 'G', NIH, Roorkee | Member |
| 5. | Prof. Sanjeev Kapoor
IIM, Lucknow | Member |
| 6. | Shri K.P. Gupta
Director (Tech), NWDA | Secretary |

Special Invitee: Govt. of Odisha:

7. Shri G.P. Roy,
Director, PPF-II,
Water Resources Department,
Govt. of Odisha, Bhubaneswar.

NIH officers:

8. Dr. M.K. Goyal
Scientist 'G'
NIH, Roorkee
9. Dr. P.K. Singh
Scientist 'C'
NIH, Roorkee

NWDA officers:

10. Shri R.K. Jain,
Chief Engineer (HQs),
NWDA, New Delhi
11. Shri N.C. Jain,
Chief Engineer (N),
NWDA, Lucknow
12. Shri O.P.S. Kushwah,
Superintending Engineer,
NWDA, New Delhi
13. Shri B.L. Sharma,
Superintending Engineer,
IC,NWDA, Bhubaneswar
14. Afroz Alam,
Deputy Director,
NWDA, New Delhi
15. Shri S.L.Jain,
Consultant (Tech.),
NWDA, New Delhi
16. Shri N.P. Sahu,
Assistant Director,
NWDA, New Delhi