

Minutes of the 1st Meeting of the “Sub Committee for Comprehensive Evaluation and System Studies on Interlinking of Rivers” held in New Delhi on 20.01.2023

The 1st meeting of “Sub Committee for Comprehensive Evaluation and System Studies on Interlinking of Rivers” was held on 20.01.2023 at 10:00 A.M. in Committee Room , Palika Bhawan, New Delhi in hybrid mode, under the Chairmanship of Sh. A.B.Pandya. The list of the participants is given at **Annexure – I**.

At the outset of the meeting, Sh.A.B.Pandya, Chairman of the Sub-committee welcomed all the members of the Sub-Committee and other invitees. He apprised all the members that this Sub Committee is generated from two previously working Sub Committees. He emphasised that the work done so far by the two Sub Committees needs to be reviewed to decide for proceeding further for works of new Sub Committee. He requested Member Secretary to brief about status of two previous Sub Committees and take up the agenda items.

Chief Engineer (HQ), NWDA & Member Secretary of the Sub-Committee welcomed Chairman and all the participants and took up the agenda items for discussions:

Item 1.1: Background of constitution of the Sub Committee

Chief Engineer (HQ), NWDA & Member Secretary of the Sub-Committee briefly explained the background and Terms of Reference of merged Sub Committee. He explained about brief status of Sub Committee-I (Sub-Committee for comprehensive evaluation of various studies / reports available on the issue of Interlinking of Rivers) and Sub-Committee-II (Sub Committee on System Studies for identification of most appropriate alternative Plan).

Thereafter, Prof. P B S Sarma, who was chairman of Sub Committee-II (Sub Committee on System Studies for identification of most appropriate alternative Plan), explained about the constitution of Sub Committee and status of works done so far by the Sub Committee. He explained about system studies of Mahanadi-Godavari link project being carried out by NIH, Roorkee and its Report is in finalisation stage. He further briefed about System studies of four links viz; Manas-Sankosh-Tista-Ganga link project, Ganga-Damodar-Subernarekha link, Subernarekha-Mahanadi link and Farraka - Sunderbans link project and awarding of works to four institutes viz; IIT, Guwahati, NIT, Patna, NIT, Warangal and NIH, Roorkee. He also informed the members that work of examining the proposals of institutes for taking up system studies for southern link system has been initiated. He suggested that NIH, Roorkee shall organise training for researchers / scientists of four Institutes who are involved in system studies of the link projects assigned to them.

Chairman of the Sub Committee opined to conduct a workshop at NIH, Roorkee and also to consider the models which are already available with reputed Institutes / Agencies and that they can be requested to modify the model as per our needs.

Sh.M.K. Sinha who was also a member of Sub Committee-II agreed with the status of Sub Committee-II as put forward by Prof. P B S Sarma. He suggested to take up system studies of southern links after system studies of four links are completed.

DG, NWDA apprised all the members that system studies of southern links is initiated as per deliberations / request of concerned States during consultation meetings held with them for consensus building among them.

Item No. 1.2: Confirmation of the minutes of 21st meeting of "Sub Committee on System Studies for identification of most appropriate alternative plan"

Prof. Kamta Prasad mentioned about his suggestions / views on minutes of 21st meeting of Sub Committee on System Studies for identification of most appropriate alternative Plan for modification of Draft Report of NIH, Roorkee. His views were broadly covered in minutes circulated for that meeting and were again discussed in the present meeting. He requested to modify the relevant paragraph of circulated minutes, in exactly the same way as has been communicated by him as quoted below:

“ Professor Kamta Prasad, who just joined the meeting as he had an accident a few hours ago, presented his views on the replies provided by NIH to his comments made earlier on the report. He illustrated with examples how the replies were mostly irrelevant, evasive or even factually incorrect. He drew attention to deficiencies with respect to information provided on major variables such as cropping pattern (existing and specially proposed), irrigation efficiency and intensity, rate of growth of human as well as cattle population, industrial demand for water, ground water recharge etc. He also drew attention to complete neglect of environmental aspects and showed how these are relevant to the study. He showed how unrealistic data and assumptions had been justified on the ground that “it is a common practice” but without giving any evidence that it is a common practice. He suggested that the report must be based on realistic data as available at the state, district or local levels. Being a very well funded study with provision for adequate time, it was expected that the study team would employ additional staff to collect the required data not available with NWDA. He also underlined the need for multi disciplinary approach for a study like this. The report was not acceptable to him. He wanted it to be thoroughly revised specially as it may reach to public domain also. He concluded by stating that many of the points made by him on this report may be Kept in view while specifying or approving design of other studies being sponsored by our Sub-Committee.

Thereafter, Professor Kamta Prasad had to leave the meeting to undergo medical investigations related to his accident. He, therefore, did not participate in the subsequent deliberation and decisions taken.”

The same was agreed by the Sub Committee and minutes of 21st meeting of the Sub Committee were confirmed subject to the above observations / comments by Prof. Kamta Prasad.

Item No. 1.3: System Studies of Mahanadi-Godavari link being carried out by NIH, Roorkee

Member Secretary explained the status of system studies of Mahanadi –Godavari link project being carried out by NIH, Roorkee and requested Dr. M.K Goel, Scientist “G” to give a presentation on outcomes of the study conducted by them

Thereafter, Dr.M.K.Goel gave a presentation explaining the major objectives of study, command area estimates, database development, water availability scenarios, estimation of water demands and cropping pattern in various scenarios, criteria for crop water demand, domestic and industrial demand, groundwater recharge estimation, climate change scenarios, development of systems model, its calibration and validation of model etc. Dr.M.K.Goel also gave a brief of comments received from members of the Sub Committee-II and their compliance status in their Report.

Prof. N.K.Goel, IIT, Roorkee suggested him to present the results of study in form of ranged values as factors like climate change and population growth are dynamic and change unpredictably. He suggested that Institutes taking up system studies work may hire agro and socio-economic experts for their expertise and guidance.

Prof. S. Iqbal Hasnain appreciated the efforts of NIH, Roorkee and analysis of scenarios considered in their study. He emphasised on the factor of global warming as the area of study taken by NIH, Roorkee is a coastal area which gets more influenced by intensity and frequency of precipitation and rate of evaporation.

Prof. Kamta Prasad requested to consider environmental flow factors and to include cropping pattern as per data available with State Government, he enquired about justification for irrigation intensities and population growth rates considered in Report and asked about assumptions taken in the Report. He opined to revise the Report as per his suggestions / views. He also emphasised to include an agro- economist, a ground water expert and an Environmental expert in team for reviewing the system studies work of remaining link projects.

Chairman requested NIH, Roorkee to take cognizance of his views and modify the Report suitably. He emphasised the inclusion of environmental flow requirements and suggested to keep provisions for demands from out of command areas, estuarine

demands and impact of water withdrawal on estuarine ecosystem before finalisation of the Report.

DG, NWDA suggested to mention about “return flows” in the canal so as to signify the supplementation of water in river due to link canal. He also requested NIH, Roorkee to develop a “Reservoir model” for future use.

Dr. M. K. Goel assured that the modifications in the Report would be carried out on basis of additional data received by them from NWDA and comments / views as discussed during the present meeting. All limitations would be mentioned clearly in the Report and Report would be submitted by March, 2023.

Item no. 1.4 : System studies of four links viz; Manas-Sankosh-Tista-Ganga link project, Ganga-Damodar-Subernarekha link project, Subernarekha-Mahanadi link project and Farraka-Sunderbans link project

Chief Engineer (N), NWDA explained about the status of work awarded for system studies of four links viz; Manas-Sankosh-Tista-Ganga link project, Ganga-Damodar-Subernarekha link project, Subernarekha-Mahanadi and Farraka - Sunderbans link project and awarding of works to four institutes viz; IIT, Guwahati, NIT, Patna, NIT, Warangal and NIH, Roorkee. He informed that MoUs have been signed with respective Institutes and payments have been made in November-December, 2022 as per schedule. The work as commenced by these Institutes is in initial stage.

Chairman suggested that nodal persons from these four Institutes should be invited to give presentation about their work methodology, models and softwares planned to be used, team of experts, experience etc. in the next meeting.

Item no. 1.5 : System Studies of Godavari – Krishna – Pennar – Cauvery – Gundar – Vaigai links system

Chief Engineer (South), NWDA gave a presentation on proposals of six Institutes received in response to invitation for Expression of Interest along with scope of work involved in system studies of Godavari- Krishna- Pennar- Cauvery- Vaigai-Gundar links' system.

Chairman of the Sub Committee suggested that these proposals should be examined by NWDA and the Sub Committee would examine only those proposals which have been shortlisted by NWDA.

Chairman, Sub-Committee concluded the meeting. He appreciated the efforts of NIH, Roorkee for system study work of Mahanadi-Godavari link and suggested NIH, Roorkee to finalise the Report as discussed. He suggested conducting next meeting, preferably in end of February, 2023 with sole agenda of status of works done by Sub Committee-I and II and their final outcomes as status of work done so far of the two

Sub Committees would be needed to devise work programme of merged Sub Committee.

The meeting ended with a vote of thanks to the Chair and all the participants by DG, NWDA for their fruitful guidance and deliberations.

Annexure – I

List of participants of the 1st Meeting of the “Sub Committee for Comprehensive Evaluation and System Studies”

S.No.	Name of the Participant	Mode
1.	Shri A.B. Pandya, Secretary General, ICID & Chairman of the Sub-Committee	Physical
2.	Prof. P.B.S. Sarma Vice Chairman of the Sub-Committee	Online
3.	Prof. Kamta Prasad Member	Physical
4.	Prof. S. Iqbal Hasnain Member	Physical
5.	Sh. M.K. Sinha Member	Online
6.	Prof. N. K. Goel Member	Online
7.	Sh. Baleshwar Thakur, CE(HQ), NWDA & Member Secretary	Physical
	Special Invitees	
6.	Sh. Bhopal Singh, DG, NWDA	Physical
7.	Sh. Shiva Prakash, CE (N), NWDA	Online
8.	Dr. R.N. Sankhua, CE (S), NWDA	Online
9.	Sh. D.K. Sharma, Director (Technical), NWDA	Physical
10.	Sh. S.C. Awasthi, Superintending Engineer- N, NWDA	Physical
11.	Sh. S.R. Mahor, Superintending Engineer- S, NWDA	Physical
12.	Sh. B.L. Sharma, SE, NWDA, IC, Gwalior	Online
13.	Sh. R.K. Gupta, SE, NWDA, IC, BBSR	Online

14.	Sh. Ch. Y. Subramaniam, SE, NWDA, IC, Valsad	Online
15.	Sh. Mahesh Kumar Raman, EE, on behalf of SE, NWDA, IC, Patna	Online
16.	Sh. N.G. Rao, SE, NWDA, IC, Hyderabad	Online
17.	Dr. M.K. Goel, Scientist "G", NIH, Roorkee	Online
Other Officers		
15.	Ms Deepti Verma, DD, O/o CE(N), NWDA	Online
16.	Ms Deepika, DD (H), NWDA	Physical
17.	Sh. Hari Om Varshney, AE, NWDA, Lucknow	Online
18.	Sh. Lalit Kumar Siyania, AE, NWDA New Delhi	Online
19.	Sh. Ankit Kumar, AE, NWDA New Delhi	Physical
20.	Sh. D.R. Rao, AE, NWDA Nasik	Online
21.	Sh. Pramod Kumar Roy, AE, NWDA IC, Patna	Online
22.	Sh. Nikhil V. J. JE, NWDA	Online
23.	Sh. Subodh Kumar JE, NWDA	Physical
24.	Sh. Shivam Sharma JE, NWDA	Online
25.	Sh. Devasundar, Consultant, NWDA, Hyderabad	Online