

**Minutes of the Eighth Meeting of the “Sub- Committee for Comprehensive Evaluation of various Studies/Reports Available on the issue of ILR held on 28<sup>th</sup> December, 2017 at Committee Room , MoWR, RD&GR, New Delhi.**

Eighth Meeting of the Sub- Committee for Comprehensive Evaluation of various Studies/Reports Available on the issue of ILR (Sub-Committee-I) was held on 28<sup>th</sup> December, 2017 New Delhi under the Chairmanship of Shri B.N. Navalawala, Chief Advisor, Ministry of Water Resources, River Development & Ganga Rejuvenation, The list of Participants who attended the meeting is at Annex-I.

The Chairman extended a warm welcome to the participants of the meeting. Thereafter, he requested Shri K.P. Gupta, Director (Technical), NWDA and Secretary of the Sub- Committee to take up the agenda items for discussion.

**Item No.8.1: Confirmation of the Minutes of the Seventh Meeting of the Sub-Committee held on 26<sup>th</sup> July, 2016 at Vigyan Bhawan Annexe, New Delhi.**

Shri K.P. Gupta, Director (Technical), NWDA informed that Minutes of the Seventh Meeting of the “Sub- Committee-I held on 26<sup>th</sup> July, 2016 at New Delhi were circulated to all the members vide letter dated 23<sup>rd</sup> August, 2016. He informed that no comments on the Minutes of 7<sup>th</sup> meeting of Sub- Committee were received from any of the members. As such, the Minutes of 7<sup>th</sup> meeting of Sub- Committee were confirmed as circulated.

**Item No.8.2: Follow-up action on the decisions taken during the Seventh Meeting of the Sub- Committee**

The Director (Technical), NWDA informed that during Seventh Meeting of Sub-Committee-I, a presentation on the draft Format of the Report was made. Certain modifications in the Format were suggested by the members. Using this format draft report of the Sub- Committee-I has been prepared and circulated with the agenda of this meeting.

**Item No.8.3: Review of NWDA Guidelines for carrying out Water Balance Study in a river basin**

During discussion on Computation of Yield, Shri A.D. Mohile, Retd. Chairman, Central Water Commission and member of the Committee expressed that simple extension of date using rainfall –runoff Correlation is not sufficient. Further, he indicated that depending upon the location and time period of data availability the need and method of extension of data should be decided. The other members also expressed similar view. Chairman desired that based on the discussion in the meeting the portion of the guidelines relevant to working out water Availability may be redrafted and circulated along with the minutes of the meeting. After the minutes of the meeting are confirmed by the Sub-committee in the next meeting the guidelines

may be finalized and placed before the Task Force for approval. The redrafted guidelines related to working out water availability is at Annex-8.3

**Item No. 8.4: Draft Report of Sub-Committee:**

The Chairman of the Sub- Committee mentioned that Chapter – 7 Suggestions and Recommendation of the Sub-committee should be reviewed in details.

After detailed deliberation on Draft Report, following points emerged:

- (i) In Chapter-2, Action Plan-1 and Action Plan-2 of the previous Task Force have been discussed wherein some Action Points were suggested. Action taken by the NWDA on such points should also be indicated in the form of “Compliance by the NWDA”.
- (ii) In chapter-4,5 and 6, the Para on “Evaluation by the Sub Committee” should be recorded.
- (iii) The committee went deeply into Affidavits/Counter Affidavits filed before the Hon’ble Supreme Court (Chapter-3) during the pendency of the Writ Petition on Networking of Rivers, but discussion remained inconclusive.
- (iv) Sub-Committee in the Chapter-7 made following modifications in the recommendation :

- (a) Himalayan links to be given equal priority like Peninsular Links.
- (b) Regarding inclusion of ILR component in bilateral agreement on Pancheshwar dam with Nepal the Sub-committee suggest not to seek any modification in the agreement, but the Sarda-Yamuna link may be planned based on the release of water from Pancheshwar dam after power generation.

The Committee suggested to include following General Paras in the report:

- (a) Consensus building among concerned States for all links for which feasibility reports have been prepared should be initiated.
- (b) For links involving international implications, the Ministry should be approached for initiating dialogue for the bilateral agreement with neighboring countries.
- (c) In order to build favourable environment for implementation of ILR Programme, each link of NWDA should be discussed at appropriate forum.

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

**Annex-I**

**List of Participants of Eighth meeting of the “Sub-Committee for comprehensive evaluation of various studies/reports available on the issue of ILR” (Sub-Committee-I) held on 28.12.2017 at New Delhi.**

- |     |   |                  |
|-----|---|------------------|
| 1.  | Dr. B.N. Navalawala,<br>Chief Advisor, MoWR, RD & GR &<br>Chairman of the Sub-Committee | In Chair         |
| 2.  | Shri A.D. Mohile,<br>Ex-Chairman,<br>CWC, New Delhi                                     | Member           |
| 3.  | Shri A.C. Tyagi,<br>Secretary General<br>ICID, New Delhi                                | Member           |
| 4.  | Shri A.D. Bhardwaj<br>Former DG, NWDA &<br>Former Member, CWC, New Delhi                | Member           |
| 5.  | Prof. S. Iqbal Hasnain (Retd.),<br>Eminent Environmental Expert,<br>New Delhi           | Member           |
| 6.  | Shri Sriram Vedire,<br>Advisor, MoWR, RD & GR<br>New Delhi                              | Special Invitees |
| 7.  | Shri R.K. Jain,<br>Chief Engineer (HQ), NWDA<br>New Delhi                               | Special Invitees |
| 8.  | Shri N.C. Jain<br>Chief Engineer (N), NWDA,<br>Lucknow                                  | Special Invitees |
| 9.  | Shri M.K. Srinivas<br>C.E. (S), NWDA,<br>Hyderabad                                      | Special Invitees |
| 10. | Shri K.P. Gupta,<br>Director (Technical), NWDA<br>New Delhi                             | Member-Secretary |

**Other Officers from NWDA**

1. Shri Muzaffar Ahmad,  
Superintending Engineer,  
New Delhi
2. Shri Afroz Alam  
Superintending Engineer,  
New Delhi
3. Shri Anil Kumar Jain,  
Deputy Director (SCILR),  
New Delhi
4. Shri S.L. Jain  
Consultant,  
New Delhi

## Re-drafted guidelines related to working out water availability

### Chapter -5 Water availability

#### Water Availability

1. The water balance study may project water availability at both 75% and 50% dependability. However, the proposed schemes should provide for a 75% success rate.
2. The water balance study should consider the surface water resources only while estimating the water balance in a river basin/sub-basin
3. Water availability upto the project site may be worked on the basis of the following:
  - I. In case, if sufficient flow data is available for 40 years or more for a basin/ sub basin, the yield may be further rationalised by using the area ratio and rainfall ratio as follows:

$$\text{Yield at site} = \frac{\text{Yield of G\&D site} \times (\text{Catchment area site} \times \text{Avg. rainfall of site})}{(\text{Catchment area of G\&D site} \times \text{Avg. rainfall of G\&D site})}$$

- II. In case sufficient flow data is not available, extended flow series based on rainfall-runoff correlations at G&D site may be used for computing yield at Project site. Rainfall-runoff relationship for monsoon period *as a whole* shall be developed by regression analysis both for linear and nonlinear form of equations.

The form of equations to be used shall be as follow:

- (i)  $Y = a+bx$
- (ii)  $Y = ax^b$

Details of computation shall be presented in annexure including graphical plot of rainfall Vs runoff. Best fit regression equation shall be selected on the basis of least standard error of estimate and co-efficient of correlation not below 0.70.

- III. In case no G&D site is available within the basin/sub basin, extended flow series based on rainfall-runoff correlations for the G&D site adjacent to the basin/sub basin with similar hydrological conditions may be used for computing yield at Project site. Rainfall-runoff relationship for monsoon period *as a whole* shall be developed by regression analysis both for linear and nonlinear form of equations.

The form of equation to be used shall be as follow:

- (i)  $Y = a+bx$
- (ii)  $Y = ax^b$

Details of computation shall be presented in annexure including graphical plot of rainfall Vs runoff. Best fit regression equation shall be selected on the basis of least standard error of estimate and co-efficient of correlation not below 0.70.

4 Flow series based on observed data rainfall-runoff regression should be corrected for existing utilization in order to work out virgin yield.