

BUREAU OF INDIAN STANDARDS
(WATER RESOURCES DEPARTMENT)
MINUTES

Environmental Assessment and Management of Water Resources Projects Sectional Committee, WRD 24			19th Meeting
Day and Date	Time	Venue	Contact details
Tuesday, 16 April 2024	10:30 A.M.	Virtual WebEx Meeting	wrd@bis.gov.in
CHAIRPERSON: SHRI RISHI SRIVASTAVA, CHIEF ENGINEER (EMO), CWC		MEMBER SECRETARY: VAIBHAV JINDAL, ASSISTANT DIRECTOR, BIS	

PARTICIPANTS:

S.no	Name	Email ID
1)	Shri Alok Paul Kalsi, CWC	emodte@nic.in
2)	Shri G. Praveen Kumar,CGWB	cgwb@nic.in
3)	Shri DK Meena, ICAR - Central Inland Fisheries Research Institute, Kolkata	dkmeenafnb@gmail.com
4)	Dr. Deeksha Katyal, Guru Gobind singh Indraprastha University, Delhi	deekshakatyal@ipu.ac.in
5)	Shri Dharmendra Kumar, GSI	dharmendra.kumar@gsi.gov.in
6)	Shri Dipal Patel, RO Hydraulics Division Geri Vadodara	rohydrogotri@gmail.com
7)	Dr. S Bandyopadhyay, ISRO	bandyo@isro.gov.in
8)	Dr. Uzzal Mani Hazarika,North Eastern Regional institute of water and land management, Tezpur	umhazarika6@gmail.com
9)	Dr. Veena Khanduri, India Water Partnership	iwpneer@gmail.com
10)	Dr. Vivek Kumar Singh, Cetus Consulting Solutions Services Private Limited	mail2drvivek@gmail.com
11)	Dr. A. Asokan, Member East, CGWB	asokan-cgwb@nic.in
12)	Dr. Sanayanbi Hodam, North Eastern Regional institute of water and land management, Tezpur	vivienehod@yahoo.com
13)	Dr. V M Chowdary, National Remote Sensing Agency	chowdary_vm@nrsc.gov.in

14)	Dr. Vijay Prakash, NTPC Limited	vijayprakash@ntpc.co.in
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29)	Shri Surendra Kumar Mishra, IIT Roorkee	s.mishra@wr.iitr.ac.in
30)	Shri Tarun, CWC	bpdte@nic.in
31)	Dr. K K singh, CBIP	kksingh@cbip.org

ITEM 0 WELCOME AND INTRODUCTORY REMARKS

The Chairman welcomed all the members to the 19th meeting of the WRD 24 Sectional Committee. The Chairman requested all the members for their contribution and regular participation in the meeting so that long pending documents in the Committee can be finalized.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

The Committee NOTED that no comments had been received on the circulated minutes of the 18th meeting of the Committee. The Committee, therefore CONFIRMED the minutes of the last meeting as circulated.

ITEM 2 COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 The Committee NOTED the present Composition of the Committee as given in Annex A of the agenda.

2.2 The Committee NOTED the fresh/New nominations received from the member organizations as given below.

S.no	Organization	Name
1)	Central Ground Water Board, Faridabad	Shri A. Asokan, Member CGWB Shri G. Praveen Kumar, Scientist-D (Alternate)
2)	National Institute of Hydrology, Roorkee	Dr. Pradeep Kumar, Sc. 'E' Dr. Rajesh Singh Scientist 'E'(Alternate)
3)	Ministry of Environment Forest and Climate Change, New Delhi	Shri Munna Kumar Shah, Sc. 'E' Dr. Saurabh Upadhyay, Sc. C (Alternate)

2.3 The Committee NOTED the nominations received from the following organization for Co-option and agreed to decide on their co-option based on their participation in the next meeting.

S.no	Organization	Name
1	DMR Hydroengineering & Infrastructures Limited	Shri K.K. Gupta, Senior Vice President & Head Civil Shri B.B.N. Subudhi, Lead manager Civil (Alternate)

ITEM 3 SCOPE AND PROGRAMME OF WORK

3.1 The Committee NOTED the present scope and programme of work.

3.2 Review of Published Standards:

The Committee NOTED item 3.2 of the agenda. The Committee observed that all Indian Standards shall be reviewed periodically, at least once in five years by the concerned Sectional Committee. In this regard, the Committee noted the current status of IS 15845:2009 given in item 3.2 of the agenda and decided to circulate IS 15442:2004 'Parameters for environmental impact assessment of water resources projects' among all the Committee members for review. The Committee especially, requested Shri Ajay Pradhan (Cetus Consulting Solutions Services Pvt. Ltd.) to review IS 15442:2004 and submit his valuable inputs.

3.3 Standards National Action Plan (2022 – 27)

The Committee NOTED item 3.3 of the agenda. The Committee deliberated on the composition of the working group constituted in the last meeting and suggested having an optimal number of members for the preparation of the working draft. In this regard, the Committee requested all members to suggest experts for the preparation of the working draft on 'Environment & Socio-economic Impact Due to River Training Works.' The Committee agreed to accept the expression of interest received from Shri Ajay Pradhan, Cetus Consulting Solution Services Private Limited and appointed him as the Convener of the working group. The Committee also decided to request Shri D.P Mathuria, Chief Engineer, Planning & Development, CWC for participation in the working group for preparation of working draft on the subject.

The Composition of the reconstituted working group is as follows:

1. Shri Ajay Pradhan, PhD, President & CEO, Cetus Consulting Solution Services Private Ltd
(*Convener*)
2. Shri R. K. Khanna, In Personal Capacity
3. Smt. Ranjana Ray Chaudhari, Teri School of Advanced Studies, New Delhi
4. Dr. Deeksha Katyial, Guru Gobind Singh Indraprastha University, Delhi.

Item 4 DRAFT STANDARDS COMPLETED WIDE-CIRCULATION

4.1 Doc No. WRD 24 (10945), Guidelines for the Preparation of Catchment Area Treatment Plan

The Committee noted item 4.1 of the agenda. The Committee deliberated on the status of the inputs awaited from MoEF&CC. In view of the receipt of fresh nominations from MoEF&CC, the Committee agreed to request MoEF&CC once again to submit the awaited clarifications on their pending inputs.

Further, the Committee deliberated on the comments received from Dr. S Bandyopadhyay (ISRO), Shri R. L. Meena (SLUSI), Shri Ajay Pradhan (Cetus Consulting Solutions Services Pvt. Ltd.), Shri K. K. Singh (CBIP), and the decisions made on these comments are placed in [Annex A](#).

The Committee noted that a long time has elapsed since the initiation of this project. Hence, the Committee opined on dropping the document at its current stage and starting the document afresh with the circulation of the modified document as a WC draft after incorporating all the resolved comments given in [Annex A](#).

4.2 Doc No. WRD 24 (23488) Guidelines for Environmental Impact Assessment and Environmental Management Plan EIA EMP for River Valley and Hydro-Electric Projects

The Committee noted item 4.2 of the agenda. The Committee deliberated on the comments received from Shri Ajay Pradhan, Cetus Consulting Solutions Services Pvt. Ltd. (placed in Annex D of the agenda) and opined that the comments are not specific and nature. The Committee requested Shri Ajay Pradhan to provide his inputs with respect to the specific clauses/subclauses. The Committee opined that the document covers all the aspects of the scope at this stage and decided to finalize the document for adoption and printing and any subsequent inputs/comments received on the document, if agreed by the Committee may be issued as an amendment or may be incorporated in the revision.

Shri Munna Kumar Shah, Scientist-E, MoEF&CC expressed his concern over the publication of this document as an Indian Standard. The Member Secretary briefed the Committee that the working draft of the document was developed by the panel after a lot of deliberations which also included representatives from MoEF&CC. The Committee acknowledged the contributions of MoEF&CC, Shri R. K. Khanna and other experts in preparation of the document and opined that Indian standard has its own relevance to cover technical guidelines on the subject. The Committee therefore decided to FINALIZE the document for ADOPTION and PRINTING.

The Committee authorized the Member Secretary to make the necessary editorial changes in the document.

Item 5 DRAFT STANDARDS COMPLETED P-DRAFT CIRCULATION:

5.1 Doc No. WRD 24 (23493), Recommendations for Remote Sensing and Geographical Information System as Relevant to Environmental Impact Assessment and Environment Management Plan

The Committee NOTED that document has completed its P-draft circulation and no comments have been received on the document. Therefore, the committee decided to circulate the document as wide circulated draft among all the stakeholders and authorized the Member Secretary to make necessary editorial changes in the draft.

5.2 Doc No. WRD 24 (23492), Guidelines for Parameters & Assessment Criteria for Downstream Flow to Maintain Ecological Balance

The Committee NOTED that document has completed its P-draft circulation and no comments have been received on the document. Therefore, the committee decided to circulate the document as wide circulated draft among all the stakeholders and authorized the Member Secretary to make necessary editorial changes in the draft.

ITEM 6 RESEARCH & DEVELOPMENT PROJECTS FOR FORMULATION AND REVIEW OF STANDARDS

6.1 The Committee NOTED item 6 of the agenda and requested all the committee members to submit the subjects and TOR for the Research and Development Projects related to WRD 24 sectional committee.

6.2 The Committee also noted item 6.2 of the agenda and decided to hold the TOR on 'Developing the standard procedure for evaluation and assessment of microplastics in water' till the publication of ISO standards on the same subject.

ITEM 7 ANY OTHER BUSINESS

7.1 The Committee decided to plan the next meeting in July 2024 in Hybrid mode.

ANNEX A

Decision on comments received on the document WRD 24(10945)

Comments from Dr. S Bandyopadhyay, ISRO:

Document No. WRD 24(10945)WC	Title: Guidelines for the Preparation of Catchment Area Treatment Plan
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Sl. No.	Clause/ Sub clause / Paragraph / Figure/Table	Type of Comment (General / Technical / Editorial)	Justification for change	Proposed Change	Decision in the meeting
1	Section 4.4	General	Drainage characteristics may not be a climate factor.		The Committee deliberated and decided to keep title as "Climatic Factors". The committee requested Dr. Bandyopadhyay (ISRO) and V.M Chowdary (NRSC) to review clause 4.4 and provide their inputs.
2	Section 6.1	General	Categorization of Engineering, Bioengineering and Biological measures with examples would be helpful for understanding		The Committee deliberated and requested Dr. Bandyopadhyay to rewrite the sentence and submit his inputs to BIS for circulation among the members for further inputs.
3	Section 2.0	General	Important aspects of a catchment area treatment plan: <ul style="list-style-type: none"> • Understanding the catchment area: This includes identifying the different land uses, soil types, and slopes in the 		The Committee deliberated and AGREED for the proposed change.

			<p>catchment, as well as the main sources of erosion.</p> <ul style="list-style-type: none"> • Prioritizing areas for treatment: This is usually done by identifying the areas that are most at risk of erosion or that have the greatest impact on water resources. • Selecting appropriate treatment measures: There are a variety of CAT measures available, including biological measures (such as afforestation and grassland restoration) and engineering measures (such as check dams and contour terraces). The best treatment measures will vary depending on the specific characteristics of the catchment area. • Monitoring and evaluation: It is important to monitor the effectiveness of the CAT plan and to make adjustments as needed. <p>(to be included appropriately by the author avoiding repetition)</p>	
4	Section 6.1	General	<p>Some specific treatment measures:</p> <ul style="list-style-type: none"> • Afforestation and reforestation: Planting trees and shrubs can help to stabilize soil and reduce erosion. • Grassland restoration: Restoring native grasslands can help to improve soil health and reduce runoff. • Check dams: Check dams can slow down water flow and reduce erosion. • Contour terraces: Contour terraces can help to trap sediment and rainwater. • Agroforestry: Agroforestry practices, such as planting trees and shrubs on farmland, can help to improve soil fertility and reduce erosion. • Improved agricultural practices: Practices such as conservation 	The Committee deliberated and AGREED for the proposed change.

			tillage and crop rotation can help to reduce soil erosion and improve water quality. (arranging the sections suitably with point-wise measures would be helpful for the readers)	
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Comments from R L Meena, Cetus Consulting Solutions Private limited, KK Singh (CBIP):

S.no	Name/Organization	Comment	Decision in the meeting
1	R L Meena, Sr. SSO (HQ) SLUSI, New Delhi	At point No.3 -Delineation of the catchment area: - The name of the organization is mentioned as All India Soil and Land Use Survey. Please rectify it as Soil and Land Use Survey of India (SLUSI) erstwhile All India Soil and Land Use Survey (AISLUS).	The Committee AGREED to the comment.
2	R L Meena, Sr. SSO (HQ) SLUSI, New Delhi	At point no. 4.3 - Soil parameters: - It is informed that Soil and Land Use Survey of India (SLUSI) also classify the soil types of the catchment area at 1:50 K scale & 1:10 K scale on the basis of USDA taxonomic classification. It is requested to include the name of Soil and Land Use Survey of India (SLUSI) along with National Bureau of Soil Survey and Land Use Planning (NBSS&LUP) in point No. 4.3.	The Committee AGREED to the comment.
3	Cetus Consulting Solutions Private Limited	Besides, quantitative analysis, we need qualitative assessments and monitoring. Here are some <ol style="list-style-type: none"> 1. Afforestation and Reforestation based on detailed land use planning based on, precipitation, landforms, drainage systems, etc. 2. Maintain water quality in the Watershed and sub-watershed as well besides sediment control. 	The Committee requested Cetus Consulting solutions services Pvt. Ltd. to mention the specific clauses/Subclauses where these changes are proposed.

		<ol style="list-style-type: none"> 3. Check structures besides Check Dams 4. CAT projects often include initiatives to improve the livelihoods of local communities in the catchment area, which can help reduce their reliance on natural resources from the area and reduce pressure on the ecosystem. This is especially true for indigenous populations. 5. Capacity building of local stakeholders and their engagement very essential to bring awareness of land and water management in the catchment area. 	
4	Shri K K Singh, CBIP	At clause no.7 of monitoring, representative of developer should also be included along with other members who is paying for CAT plan.	The Committee decided the Clause 7 Monitoring as "It is very essential that proper and regular monitoring is carried out for the effective implementation of the CAT plan. The multidisciplinary Environmental Monitoring Committee constituted for the monitoring of other Environmental Management Plans, should also monitor the progress of CAT works. The committee should have representatives from Project authority , Forest, Fisheries, Wildlife, Horticulture, Soil and Water Conservation Departments of the concerned State Government and the local area representatives etc. as required . Evaluation of changes in landscape during pre and post-treatment phases should be done by satellite and remote sensing-based methods in combination with GIS-based methods.

