

Minutes of the 23rd meeting of Project Appraisal & Approval Committee (PAAC-EPC)

The 23rd meeting of the PAAC-EPC, chaired by Chairman, CPCB, was held on March 25, 2022 via video conferencing. List of participants is placed at Annexure - I.

02. Chairman, CPCB welcomed the members to the meeting. AQM division briefed the committee about background and purpose of EPC funds, including thrust areas under which project and activities are funded, and constitution of PAAC. Subsequently, the committee was briefed about the status of EPC funds and proposals received for consideration at CPCB under said funds. Rs. 249.27 crore have been received in the EPC fund account as on 10.03.2022, out of which Rs. 67.29 crore has been expended with a total committed expenditure of around Rs. 100 crore. A total of 111 proposals have been received, out of which 108 proposals have been placed before the committee and 03 are new proposals. Out of 108 proposals, 28 projects have been sanctioned by the committee and 67 proposals have been rejected, while 13 proposals are under consideration. Accordingly, 13 old proposals and 1 new proposal are to be placed before the committee for taking a decision in the matter. Remaining 2 proposals which have been received recently will be placed before the PAAC in the next meeting.

03. The PAAC was also apprised that the internal sub-committee constituted by AQM division earlier to examine the proposals received for consideration under EPC funds and submit feedback to the PAAC, has been expanded to include experts from external institutes/organizations. First meeting of this expanded sub-committee, called as the Technical Group under PAAC, was held on 24.03.2022, and 11 proposals were discussed.

04. Subsequently, AQM division apprised the committee about the agenda of the meeting involving deliberations and taking a decision on 13 old and 1 new proposal, and post-facto approval on award of Operation and Maintenance of Smog Tower and release of payments as per actuals for the project. The observation and decisions of the committee are summarized below:

A. 11 old/new proposals discussed in Technical Group under PAAC:

Observations made by the Technical Group on 11 proposals examined by it were shared with PAAC members for perusal and consideration. These observations were discussed by the PAAC members during the meeting and based on discussions, PAAC recommended the following:

- i. **A prospective Cohort study of Air Pollution Impact on Respiratory System by IIT Delhi:** PAAC expressed that the observations made by the Technical Group be shared with IIT Delhi and IIT Delhi be asked to submit revised proposal duly addressing and incorporating these observations. PAAC also asked CPCB to enquire from ICMR, if similar study has been undertaken, to avoid duplication of work. The proposal shall be further reconsidered, post review of revised proposal by technical group.
- ii. **Assessment of air pollution exposure at different times during two seasons in the schools of Delhi along with basic lung functions in the senior school students by Health Environment Foundation (HEF):** PAAC was briefed that revised proposal has been submitted by MAMC to CPCB focusing on assessment of indoor air quality in schools and factors affecting it rather than assessing health status of children, and, accordingly preparing guidelines for indoor air quality improvement. This is in line with the observations made by PAAC on the proposal earlier presented by MAMC.
PAAC approved the award of study to MAMC subject to modification of scope and methodology of project execution in-line with the observations made by the technical group and cost implications associated therein. PAAC also mentioned that project funds would be released to MAMC only and not to Health Environment Foundation and MAMC will be responsible for project execution and that acknowledgement in terms of project acceptance to be provided by Director, MAMC.
- iii. **Identification of Regions around a Highway in NCR Impacted by Vehicular Emissions, Status of Residents Health in Nearby Areas, and an Overview of Efficiency of Air Pollution Mitigation Strategies by IIT Kanpur:** Considering the views expressed by the technical group, the proposal was rejected by the PAAC.
- iv. **A Computational Framework for Cost-effectiveness Assessment and Deployment Optimization of Air Pollution Abatement Interventions in Delhi/NCR by IIT Delhi:** Considering the views expressed by the technical group, the proposal was rejected by the PAAC.
- v. **Burden of Disease vis-à-vis Air Pollution in Delhi-NCR - Epidemiology and Bio-monitoring - based Health Risk Assessment Study by NEERI, Nagpur:** Considering the views expressed by the technical group, the proposal was rejected by the PAAC.



- vi. **Air pollution hot spots in western IGP: Implications on agro ecosystem by JNU:** Considering the views expressed by the technical group, the proposal was rejected by the PAAC.
- vii. **Spatial variation and diversity of airborne biological particles in Delhi city by NIT Surathkal:** PAAC agreed with observation of technical group and expressed reservations about sampling collection and analysis, as samples would be transported to Karnataka. PAAC recommended that the project proponent may associate with IIT Delhi, which has approached CPCB for conducting a cohort study. The committee suggested that a meeting may be held with NIT Surathkal and IIT Delhi under the chairmanship of Member Secretary, CPCB, for finalizing the matter.
- viii. **Artificial Neural Network (ANN) Based Prediction System Integrated with SENSURAIR PM_{2.5} Sensor by IIT Delhi:** As suggested by the technical group, PAAC asked the PI to submit laboratory test reports for the sensors for further examination in terms of calibration and performance, with protocols used. PAAC also expressed that since sensors have already been developed with DST, clarification is to be sought about the value addition of this study to existing knowledge. Further, the response from the proponent and the proposal may also be shared with DST, for their comments.
- ix. **Investigation of micro plastics, phthalates and metals bounded to the airborne PM_{2.5} over Delhi -National Capital Region (NCR) by Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam:** Considering the views expressed by the technical group, the proposal was rejected by the PAAC.
- x. **Techno-Economical Demonstration of Utilization of Paddy Straw to Prevent Air Emissions from Open Field burning and Improve Air Quality of New Delhi by Himachal Pradesh University:** Considering the views expressed by the technical group, the proposal was rejected by the PAAC.
- xi. **An explanatory study - Assessment of Benzene Concentrations at retail outlets in Delhi post intervention by TERI:** PAAC was informed that the technical group has expressed that the proposal shall only assist in assessing overall impact of VRS installation on work zone/ ambient benzene concentrations, and not the VRS efficiency. MS-CPCB expressed that computing VRS efficiency may be difficult as capacity of the



petrol pump, sources in surrounding areas and meteorology plays an important role. However, the scope of the study could be expanded to also assess the functioning of VRS, which would provide further inputs to CPCB for enforcement. It was recommended that the proponent shall submit revised proposal considering the views expressed by the technical group and PAAC.

B. Proposals apprised previously and recommendations of PAAC (based on external department/experts feedback):

- i. **Heavy Duty vehicle fuel consumption calculation and validation through vehicle simulation tool submitted by Automotive Research Association of India (ARAI):** PAAC was informed that the proposal was recommended by the DST Expert Panel. However, it is learnt that this proposal is under consideration by Bureau of Energy Efficiency (BEE). Committee noted that project cost is high and the cost is to be re-worked. Committee also suggested to seek response from PI on the proposal submitted to BEE to avoid duplication of work. PAAC approved the proposal in-principle, subject to receipt of response from ARAI and detailed review of proposal along with the cost by the technical group.
- ii. **Conversion of End-of-life and In-use Diesel Vehicles in Electric Vehicles by Indian Institute of Petroleum (IIP), Dehradun:** Proposal was discussed in 9th and 10th PAAC-EPC meeting, and PAAC had recommended to obtain comments from MoRTH and MoHI. MoRTH has suggested major modifications in the study, while DHI has not recommended the proposal in view of lack of novelty in the proposal. In view of the response of the concerned parent ministries, the proposal was rejected by the PAAC.
- iii. **Decision Support System for Early Warning, and Informed Actions in Delhi-NCR by IIT Delhi received through CAQM:** PAAC was informed that CAQM vide their letter dated 23.03.2022 has informed that an Expert Group constituted by it, has developed a Decision Support System (DSS) and that the proposal for DSS earlier submitted by IIT Delhi, may not be pursued further.
In view of the above, the proposal has been withdrawn by CAQM and therefore was not considered by the PAAC.



C. Post facto approval on award of Operation and Maintenance of Smog Tower and release of payments as per actuals:

The committee was informed that construction and installation works of the smog tower project were completed by 31.08.2021 and the smog tower was inaugurated by Hon'ble MEFC on 07.09.2021. The PAAC in its 21st meeting had recommended that NBCC may be approached for O&M of the smog tower and NBCC may, in turn, get this done through TPL. Subsequently, a tripartite agreement was signed on 06.09.2021 between CPCB, NBCC and TPL for O&M of the smog tower at Anand Vihar, where TPL is performing the O&M of the experimental smog tower for an initial period of 02 years, with NBCC as the project management consultant.

The annual cost for O&M of the smog tower for 1st year is Rs 1,33,61,036, and 2nd to 4th year is Rs 1,51,13,268 excluding electricity cost, NBCC PMC charges (15%) and other costs as per actuals. Cost for electricity bills is being paid by CPCB as per actual bills received from BSES. PAAC was also apprised that an amount of Rs 1,12,60,022 was released to NBCC for advance payment for purchase of one set of filters.

PAAC was informed that signing of the O&M agreement and expenses made as per actuals were necessary for timely execution and operation of the project., and hence post-facto approval from PAAC is sought. PAAC provided its concurrence to award of O&M of the smog tower and the said payments.

05. Sh. P.K. Banerjee, SIAM sought to know about the performance results of the smog tower. Chairman, CPCB expressed that IIT Bombay is evaluating the performance of the smog tower, and preliminary results are being received by CPCB. He expressed that a technical session may be organized by CPCB, wherein IITB may present the performance of the Smog Tower, with the participation of members of PAAC.

06. Chairman, CPCB expressed that from the project proposal considered today, it appears that majority of them are studies which may be more useful from academic point of view and that proposals that could help us in larger interest of improvement of air quality are to be encouraged. It was suggested that technical Group may create a template for proposal submission, clearly indicating the tangible outcomes for the proposed project/study be it in terms of standards development/ new techniques/ solutions for air pollution control etc. and also necessary components required along with detailed cost break-up. The proposal submission process may also be made available through online mode.



07. MS, CPCB expressed a lot of studies regarding air pollution in NCR have already been conducted, and sought inputs from PAAC members on any new thrust areas that may be explored. PAAC suggested that CPCB may create Centre of Excellence/chair positions at institutes/research organisations in NCR, like IIT Delhi, AIIMS, MAMC, ICAR, etc. for conducting research in the field of air pollution mitigation. Chairman, CPCB expressed that a meeting may be held with technical institutes/Institutes of Repute for looking into new avenues for air quality improvement. It was also suggested that views of Technical Group on projects relating to air quality improvement that could be considered might also be sought, and further if Technical Group would like to get a specific study executed in this regard, then the same might also be suggested to PAAC.

08. Sh. P.K. Banerjee, SIAM informed that after the introduction of electric vehicles, the sale of diesel vehicles has declined. Hence, SIAM enquired about trends of registered vehicles and collected EPC funds. Chairman, CPCB expressed that the information available on this may be shared with SIAM.

09. Dr. Rashid Hasan, SIAM informed that SIAM is implementing a few projects to reduce stubble burning incidences in Punjab under CSR funds with PPCB, and enquired if these projects can be up-scaled using EPC funds. Chairman, CPCB suggested that SIAM may prepare a project proposal on the matter and submit the same through PPCB.

10. Chairman, CPCB expressed that the Technical Group under PAAC may be advised to clearly mention their recommendations on the proposals, and in future meetings of the PAAC, they may also be invited to provide advice/clarification to the PAAC.

11. Chairman, CPCB also asked AQM division to request the members of MORTH, DHI and UPPCB to ensure their participation in future meetings of the PAAC.

Meeting ended with vote of thanks to the chair.



List of Participants (through VC):

1. Sh. Tanmay Kumar, Chairman, Central Pollution Control Board
2. Dr. Prashant Gargava, Member Secretary, Central Pollution Control Board
3. Sh. K. S. Jayachandran, Member Secretary, DPCC
4. Sh. Sundeep, Director, CP Div., MoEFCC
5. Sh. Manoj Srivastav, Director, IFD, MoEFCC
6. Sh. Kapil Verma, Director (Ref.), MoPNG
7. Dr. V. K. Soni, Head EMRC, IMD
8. Dr. J. B. V. Reddy, Scientist 'E', DST
9. Sh. Bhupendra Chahal, EE, HSPCB
10. Smt. Sheeba, SSO, RSPSCB
11. Sh. P. K. Banerjee, Executive Director, SIAM
12. Dr. Rashid Hasan, Advisor, SIAM
13. Representatives, DPCC

CPCB Officials:

1. Sh. P. K. Gupta, Director and Head, AQM Division
2. Sh. Diganta Kalita, Incharge, F&A Division
3. Dr. Abhijeet Pathak, Scientist 'D', Air Lab
4. Sh. Ankush Tewani, Scientist 'D', AQM Division
5. Sh. Gautam Kumar Sharma, Scientist 'B', AQM Division
6. Sh. Toshesh Bhargava, SRF, AQM Division
7. Sh. Gyantosh, SA, IT Division
8. Sh. Amit Kumar, SA, IT Division

