

**J&K LAKES AND WATERWAYS DEVELOPMENT AUTHORITY
MISKEEN BAGH, RAINAWARI, SRINAGAR-190003**

**Minutes of the Scientific Advisory Committee Meeting held on 17.07.2017 at SKICC,
Srinagar.**

Members of the Scientific Advisory Committee who participated in the meeting:

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| 1. Dr.A.R. Yousuf
(Ex-Member Green Tribunal, GOI) | Chairman |
| 2. Dr. D.P.Zutshi
(Former Emeritus Professor, JNU, New Delhi.) | Member |
| 3. Dr. Sidharath Kaul
(Ex-Advisory Ministry of Environment and Forest) | Member |
| 4. Shri Mohammad Shafi Bacha
(Retd. Chief Wild Life Warden, Srinagar.) | Member |
| 5. Dr.Shakeel Ahmed Ramshoo
(Head Deptt. of Earth Sciences, Kashmir University) | Member |
| 6. Dr.Manzoor Ahmed Shah
(Sr. Assistant Professor, Deptt. of Botany,
University of Kashmir.) | Member |
| 7. Dr. Mohammad Sultan Bhat
(Prof. Deptt. of Geography and Regional
Development, University of Kashmir.) | Member |
| 8. Dr. Farooq Ahmed Lone
(Associate Prof. Div. of Environmental
Science, SKAUST, Srinagar.) | Member |
| 9. Dr. Ashok Pandita
Prof. (Re-employed) Aquatic Ecologist,
Kashmir University, Srinagar. | Member |
| 10. Dr.G.Balachandra
(Trustee and Ex-Director, Ashoka Trust for
Research in Ecology and Environment Bangalore.) | Member |
| 11. Mr. Sheikh Thaseen Mustafa
(Vice Chairman, J&K LDA.) | Convener |

Special invittee:

1. Shri Zaffar Shah
2. Mr. Arvind Kotwal
3. Dr. Syed Nadeem Hussain

Amicus Curie.

Additional Secretary, H&UDD.

Regional Director, SPCB, Srinagar.

The officers of J&K LDA present in the meeting:

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| 1. Sh. R.C.Bhasin | Superintending Engineer, J&K LDA |
| 2. Mrs. Sumaira Shameem | Secretary, J&K LDA. |
| 3. Sh. Basharat Kawoosa | Executive Engineer, Lake Division 2 nd , J&K LDA. |
| 4. Sh. Raman Uppal | Executive Engineer, Lake Division Ist, J&K LDA. |

The meeting began with Vice Chairman, J&K LDA (convener, SAC) briefing the committee about the action taken on the suggestions given by the members in the meeting held on 08.05.2017. After which the Learned Amicus Curie, Sh. Zafar A. Shah addressed the meeting and requested the members to provide the practical solutions to the problems faced by the lake so that the same can be submitted before the Hon'ble High Court and the Monitoring committee headed by Chief Secretary. He wanted the members to provide their expert views on the issues like quantum of weed to be deweeded, whether the deweeding can be carried out throughout the year and the mode of deweeding to be adopted (manual or mechanical). In addition he asked the members to suggest whether any additional conservation measure need to be implemented for lake management which has been left out in the DPR. He also requested the members to look into the draft legislation which are being framed for the protection of water bodies of the state and provide their valuable suggestions. The hard copy of the draft legislation was circulated among all the members by the J&K LDA in the meeting itself.

The meeting was then addressed by the Chairman of the SAC, who mentioned that the committee can recommend solutions only when they are provided with the requisite data. He said that for taking a decision on deweeding the pre-requisite is the vegetation mapping, including dominance pattern of various weeds in the lake. He informed the members that the work on vegetation mapping of the lake has been started after it was resolved to be taken up in the first meeting on 08.05.2017. The job has been entrusted to University of Kashmir by the J&K LDA and they have already begun the job. He was also of the opinion that the data and figures reflected in the vision document need certain clarifications for which the author has to give a presentation before the committee.

The meeting was also addressed by Dr. Sidharath Kaul who was of the opinion that the carrying capacity of the lake need to be ascertained. He again stressed that the details

regarding the money spent till date be provided to the committee. He said that in order to reduce the nutrient loading of the lake through various sources, the role of artificial wetlands become very important. Dr. D.P.Zutshi while making his remarks informed the committee that the present conservation measures being adopted by J&K LDA are as per the Detailed Project Report prepared by IIT-Roorkee. He said that it is very important to evaluate the job that has been carried out till date and find out which activities have been left out. He was of the opinion that there was no need of framing another vision document as there already exists provision of updating the present DPR which could have addressed the left out portions. He said that the lake is facing multiple problems because of the fact that it has a very huge catchment in comparison to the water expanse of the lake. He also stressed that there is need to assess the impact of dewatering on the diversity of the lake. Other members also addressed the meeting and presented their point of view.

After deliberation the major decisions taken in the meeting were:

1. The first item on the agenda was regarding the feasibility or otherwise of summer dewatering in certain parts of the lake for aesthetics in respect of a letter was circulated by the I/C R&M to all the members before hand. After deliberating on the issue, it was resolved that the J&K LDA will carry out dewatering in the summer season in addition to the practice already being carried out in Spring and Autumn seasons, but the activity shall be carried out as per the requirement and the scientists of R&M Division shall record the changes every month and submit the data to the committee. The members also felt that the spread of lily need to be stopped and as such shall be uprooted manually and mechanically.
2. Artificial wetlands shall be created at the mouth of the tributaries/drains entering the lake, wherever land is available in order to arrest the flow of nutrient rich water directly into the lake. It was observed that this practice will to a great extent help in stopping the flow of untreated sewage into the lake.
3. It was felt by all the members that the Research & Monitoring Division is lacking in man power as well as latest equipments. The members expressed that the scientific staff has received enough experience as they have been

working since last twenty years. Therefore, it was recommended that the senior most scientist of the Research & Monitoring Division may be entrusted the job of heading the R&M Division. It was also recommended that necessary steps be taken to create promotion avenues for existing research/supporting staff. The members observed that strengthening of the research staff as also the infrastructural facilities therein is the need of the hour. The committee also recommended that capacity building programmes be undertaken for the scientific staff.

4. All the members were of the view that all the conservation measures undertaken, in the end, ought to reflect in the improvement of the water quality of the lake. Accordingly for assessing the success of various conservation steps taken, water quality of the lake needs to be assessed on regular basis with precision so that the clear picture emerges. The committee observed that the R&M laboratory of J&K LDA is deficient in modern equipment used for water quality assessment. It was therefore recommended that J&K LDA shall take immediate steps to procure latest equipments and analytical probes for assessing the concentration of various physic-chemical parameters of the lake water, lake sediments as well as the STPs.
5. It was brought to the notice of the SAC the R&M Laboratory does not have any motor boat of its own for the field sampling due to which regular sampling programme gets affected. The Vice Chairman, J&K LDA informed the committee that J&K LDA has already placed orders for the purchase of some motor boats and he assured that one motor boat will be kept completely at the disposal of Research & Monitoring Division for sampling purpose inside the lake, once these boats are received by the Authority.
6. Some members felt that there is need of assessing the presence of pesticide residues in the lake water, as large quantities of pesticides are being used in the immediate catchment of the lake. It was resolved that the J&K LDA shall approach SKAUST-K for extending help for the estimation of pesticides in the lake waters.

7. As per the directions of the Hon'ble High Court, all the members of SAC had been supplied copies of the limnological data pertaining to the Hazratbal and Nigeen basins of the Dal lake before hand through e mail for their expert comments. When the matter came up for discussions, it was considered opinion of most of the members that as the limnological data provided to the members pertained only to two basins of the Dal and that too for surface waters only, it was desired that the data for the other basins-Lokut Dal, Boulevard and Floating Gardens, etc;- needs to be provided to them by the LDA for reaching to some conclusion in respect to the change in the lake water quality with the time. The scientific staff of R&M Division of LDA sought some time for the submission of these data on the plea that compilation of data of twenty years would take some time. The Committee advised them to place these data before the SAC in its meeting scheduled for third week of August, 2017.
8. While commenting on the Vision Document, hard copy of which was placed on table during the meeting, the members took strong objection to the manner in which the author of Vision Document has not been able to give a presentation before the committee. It was decided that the Authority will communicate to Dr.Kazmi to give his presentation on any day between 16th to 20th August, 2017.

The meeting ended with the Vice Chairman, LDA (Convener, SAC) thanking the Chairman and all the members of the Scientific Advisory Committee for giving their valuable suggestions on various issues faced by lake. After the meeting, the committee members visited the lake to assess the spread of lily and other aquatic plants in the lake and the measures undertaken for their removal. The members showed concern about the spread of the lily in the lake and impressed upon the LDA authorities to take all possible steps to contain the spread of lily.

Sd/-
(Dr. Abdul Hafiz Shah)
Vice Chairman
J&K Lakes & Waterways Dev. Authority
(Convener, SAC)

Sd/-
(Dr.A.R.Yousuf)
Chairman, SAC

No.: R&M/DA/216-27

Dated: 01-08-2017

Copy to:

1. Dr. A.R.Yousuf, Ex-Member, Green Tribunal, GOI. (Chairman).
2. Mr. Mohd. Shafi Bacha, Retired Chief Wild Life Warden, Srinagar. (Member)
3. Dr. S.Kaul, Ex-Advisor Ministry of Environment & Forest. (Member)
4. Dr. T.Nandy, Sr. Scientist, NEERI. (Member)
5. Dr. Shakeel Ramshoo, Head, Deptt. Of Earth Sciences, Kashmir University, Srinagar. (Member).
6. Dr. Ashok Kumar Pandit, Prof. (Re-employed) Aquatic Ecologist, Kashmir University, Srinagar. (Member)
7. Prof. D.P. Zutshi, Former Emeritus Professor, JNU, New Delhi. (Member)
8. Dr. M.Sultan Bhat, Prof. Deptt. of Geography & Regional Development, Kashmir University, Srinagar. (Member)
9. Dr. Pinaki Sar, Associate Professor, Deptt. of Biotechnology, IIT, Kharagpur. (Member)
10. Dr. Farooq A. Lone, Associate Professor, Deptt. Of Environmental Sciences, SKAUST, Srinagar. (Member).
11. Dr. Manzoor Ahmed Shah, Sr. Asstt. Professor, Deptt.of Botany, Kashmir, Srinagar. (Member).
12. Dr. G. Balachander, Trustee & Ex-Director, Ashoka Trust for Research in Ecology and Environment, Banglore. (Member).

(Sumeera Shamim), KAS
Secretary

J&K Lakes & Waterways Dev. Authority
Srinagar.