

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

**Minutes of the Scientific Advisory Committee Meeting held on 08.05.2017 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 |
| 2. Dr. D.P.Zutshi | Former Emeritus Professor, JNU, New Delhi. |
| 3. Dr. Sidharath Kaul | Ex-Advisory Ministry of Environment and Forest |
| 4. 4.Shri Mohammad Shafi Bacha | Retd. Chief Wild Life Warden, Srinagar. |
| 5. Dr.Shakeel Ahmed Ramshoo | Head Deptt. of Earth Sciences, Kashmir University |
| 6. Dr.Manzoor Ahmed Shah | Sr. Assistant Professor, Deptt. of Botany,
University of Kashmir. |
| 7. Dr.Pinaki Sar | Associate Professor, Deptt. of Biotechnology, IIT,
Kharagpur. |
| 8. Dr. Mohammad Sultan Bhat | Prof. Deptt. of Geography and Regional
Development, University of Kashmir. |
| 9. Dr. Farooq Ahmed Lone | Associate Prof. Div. of Environmental
Science, SKAUST, Srinagar |
| 10. Dr.G.Balachandra | Trustee and Ex-Director, Ashoka Trust for
Research in Ecology and Environment Bangalore |

Special invitee:

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| 1. Shri Zaffar Shah | Amicus Curie |
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The officers of J&K LDA present in the meeting:

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| 1. Sh. Sheikh Thaseen Mustafa | Vice Chairman, 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 1 st , J&K LDA. |
| 5. Sh. Shafat Khan | Executive Engineer, Mechanical Division, J&K LDA. |

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| 6. Sh. Sohail Ahmad | Enforcement Officer, J&K LDA. |
| 7. Sh. Imran Ah. Nowsheri | A.E.E. Mech Division, J&K LDA. |
| 8. Sh. Tariq Ahmad | A.E.E. Inlake Sub- Division, J&K LDA. |
| 9. Mr. Tanveer Ahmad | A.E. Inlake Sub-Division, J&K LDA. |
| 10. Mrs. Neelofar Naz | Scientist A, J&K LDA. |
| 11. Mrs. Nayara Taban | Scientist A, J&K LDA. |
| 12. Mrs. Andleeb Wadoo | Scientist A, J&K LDA. |
| 13. Sh. Sushil Kumar Dhar | STA, J&K LDA. |
| 14. Sh. Shabir Kanth | Law Officer, J&K LDA |
| 15. Sh. Shahnawaz Ahmad | JTA, J&K LDA. |

The proceedings of the meeting began with Sh. Zafar Shah, Amicus Curie briefing the members of the committee about the proposed legislation which is being drafted for the preservation of all the water bodies of the state. He made it clear to the members that the suggestions put forth by the committee will be forwarded to the Standing Committee which is chaired by the Chief Secretary and will be binding for carrying out the conservation of various lakes of the state. He also informed the members that this Scientific Committee has to recommend conservation plans for all the water bodies of the state. He informed the members that Hon'ble High Court and the proposed legislation will give the committee necessary powers to function independently.

After the introductory remarks of the Amicus Curie the Vice Chairman, J&K LDA briefed about the various conservation measures adopted by the Authority and was of the view that it was because of these measures that Dal lake has survived citing the examples of Gilsar and Khushalsar which is not in goodshape. The Vice Chairman also briefed the forum about the various difficulties being faced by the Authority in implementing various conservation plans. The members also appreciated the steps taken by the Authority for the conservation of lake, however, were of the opinion that the pace of some of the plans which are under implementation need to be accelerated. Dr. S.Kaul stressed that complete details regarding the funds received and the expenditure incurred till date from various sources for the conservation and management plan should be made available to the committee which was agreed by upon all the members.

Later on the action taken report of previous Scientific Advisory Committee was discussed threadbare which is summed up as under:

Point discussed	Advice of the Scientific Advisory Committee
<p>1. Occurrence and infestation of Azolla in the lake</p>	<p>The Azolla is a perennial water fern and is a invasive species. It mostly spreads during the Autumn season and should be skimmed off before shedding spores. It was also felt in the meeting that from early eighties to the present times there has been change in the vegetation pattern of floating macrophytes by way of Salvania getting replaced by the Azolla. The main reason being the enrichment of water by nutrients and change in weather conditions. The committee was told that the water fern is coming into the lake from hinterland through the inflow channels. The members unanimously were of the view that the study regarding the life cycle of this water fern need to be carried out. In this context it was decided that the J&K LDA will involve SKAUST-K for carrying out this study supported by the Scientists of the Authority. However, it was decided that before any study is carried out a status paper regarding the presence of Azolla in the lake need to be prepared by SKAUST-K with the help of J&K LDA. The status paper will be released by SKAUST-K within three months which will also recommend short term remedial measures. Meanwhile it was suggested that possibility for using Azolla as poultry feed and manure need to</p>

	be explored by SKAUST-K.
2. Algal blooms in the Dal lake	<p>Dr. D.P.Zutshi made a point that Macrophyte dominated lakes do not have algal blooms. As such submerged macrophytes are essential for the lake. The members were of unanimous view that only selective deweeding should be carried out . It was decided that the decision regarding desilting the bloom hit area will be taken once the members will make a visit to these areas. Dr. D.P.Zutshi also suggested that small artificial wetlands should be created near the inflow channels wherever possible in order to check the inflow of nutrients into the lake. It was also decided that Authority should go for vegetation mapping of the lake.</p>
3. Spread of lily pads	<p>Members were of the view that lily has spread in the lake mostly due to its cultivation done by the locals so that they can convert it later into floating gardens . Dr. Zutshi was of the view that manual uprooting is the solution of the problem rather that cutting it. However, the Vice Chairman informed the committee that labourers for carrying manual deweeding are available in lesser number as such possibility of uprooting by way of machines need to be explored. All the members agreed to the suggestion and recommended that LDA will explore the possibility of procuring /fabricating a machine which can uproot these lily pads. Prof. Manzoor Ahmed Shah was requested to take up</p>

	the matter of such a machine with NIT Srinagar.
4. Houseboat sanitation	The members were informed that the Authority is realigning 50% of the houseboats in the Doledemb area. However, it was felt that a brief study / survey of the area of re-alignment be carried out immediately for checking safety of housesboats vis-à-vis wind speed /direction. Dr.Mohd. Sultan Bhat was requested to help in providing the data regarding wind speed/direction for having the precautionary measures in place.
5. Macrophytic Control	It was stressed that there must be a comprehensive plan for carrying out the deweeding in the lake. All the members stressed that only selective deweeding should be carried out since plants are also beneficial for the lakes. It was also recommended that a stratified vegetation map of the lake be prepared, which would facilitate selective deweeding in the lake.
6. Land mass removal	Dr.Shakeel Ahmad Ramshoo stressed that some of the land masses can be used for eco-tourism purposes which can in the long run provide employment to the Dal dwellers as well. In addition stress was laid on allowing only organic farming on the floating gardens of the lake as was the practice previously . It was felt in the meeting that there must be a provision for it in the proposed legislation also and agricultural deptt. should monitor it. However, all the members agreed with the view of Dr.Pinaki Sar

	<p>that farmers need to be given some time for switching over from inorganic to organic farming. It was decided that LDA will approach SKAUST-K for providing complete details of organic farming and possibility of converting deweeded material into compost. The suggestion of Vice Chairman that the previous Socio Economic surveys need to be updated was unanimously agreed by all the members.</p>
7. Dredging	<p>The members were of the view that before any dredging is carried out study regarding bathymetry along with flow pattern inside the lake need to be carried out. For that purpose it was suggested that the Authority should procure Eco-sounder fitted with GPS.</p>
8. Decline in the native species of fish	<p>It was decided that LDA will approach the Fisheries Deptt. for obtaining data regarding the status of Grass Carps / Silver Carps as well as native fish in Dal lake.</p>
9. Strengthening of lab. infrastructure	<p>The members felt that the infrastructure of Research & Monitoring Division need to be strengthened by way of providing latest equipments in the laboratory. The staff of the laboratory need to be provided adequate promotion avenues. The promotion avenues need to be created in a time bound manner. Dr. S. Kaul stressed that Authority has already lost a number of experienced persons due to non-availability of promotion avenues and less pay scale compared to other sister organizations. It</p>

	was also decided that there has to be several capacity building programmes for laboratory personal . All the members also stressed that the consolidated staff of the laboratory need to be regularized as they have been working with dedication for the last twenty years.
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Regarding deliberations on the Vision document it was decided that Dr. Kazmi will give a presentation regarding the various aspects touched in the document. As such it was decided that the Authority will approach Dr. Kazmi and fix date for presenting the the same.

All the members decided that rest of the issues will be decided in the next meeting which will be held within a month's time.

The meeting ended with the Vice Chairman thanking the Chairman and all the members of the Scientific Advisory Committee for giving their valuable suggestions on various issues faced by lake.

Sd/-

(S. Thaseen Mustafa)

Vice Chairman

J&K Lakes & Waterways Dev. Authority Sgr.
(Convener, Scientific Advisory Committee)


No.: LDA/RSM/46-59

Dated: 1-6-2017

Copy to :

1. **Dr. A.R Yousuf** Ex. Member Green Tribunal, GOI.(Chairman)
2. **Mr. Mohammad 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 Ramshu**, 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 Science, SKUAST, Srinagar. (Member)
11. **Dr. Manzoor Ahmed Shah**, Sr. Asstt. Professor, Deptt. of Botany Kashmir University, Srinagar. (Member)
- ✓12. **Dr. G. Balachander**, Trustee & Ex. Director, Ashoka Trust for Research in Ecology and Environment, Bangalore. (Member)
13. Incharge, R&M Division, LDA Srinagar for information and follow up action.
14. PA to VC, for kind information of Vice Chairman, J&K Lakes & Waterways Development Authority, Srinagar.


(Sumera Shamim), KAS
Secretary
J&K Lakes and Waterway Development Authority,
Srinagar