

S E C T I O N - I

**Effectiveness of institutional mechanism and legal
framework for long-term environmental
sustainability of lakes**



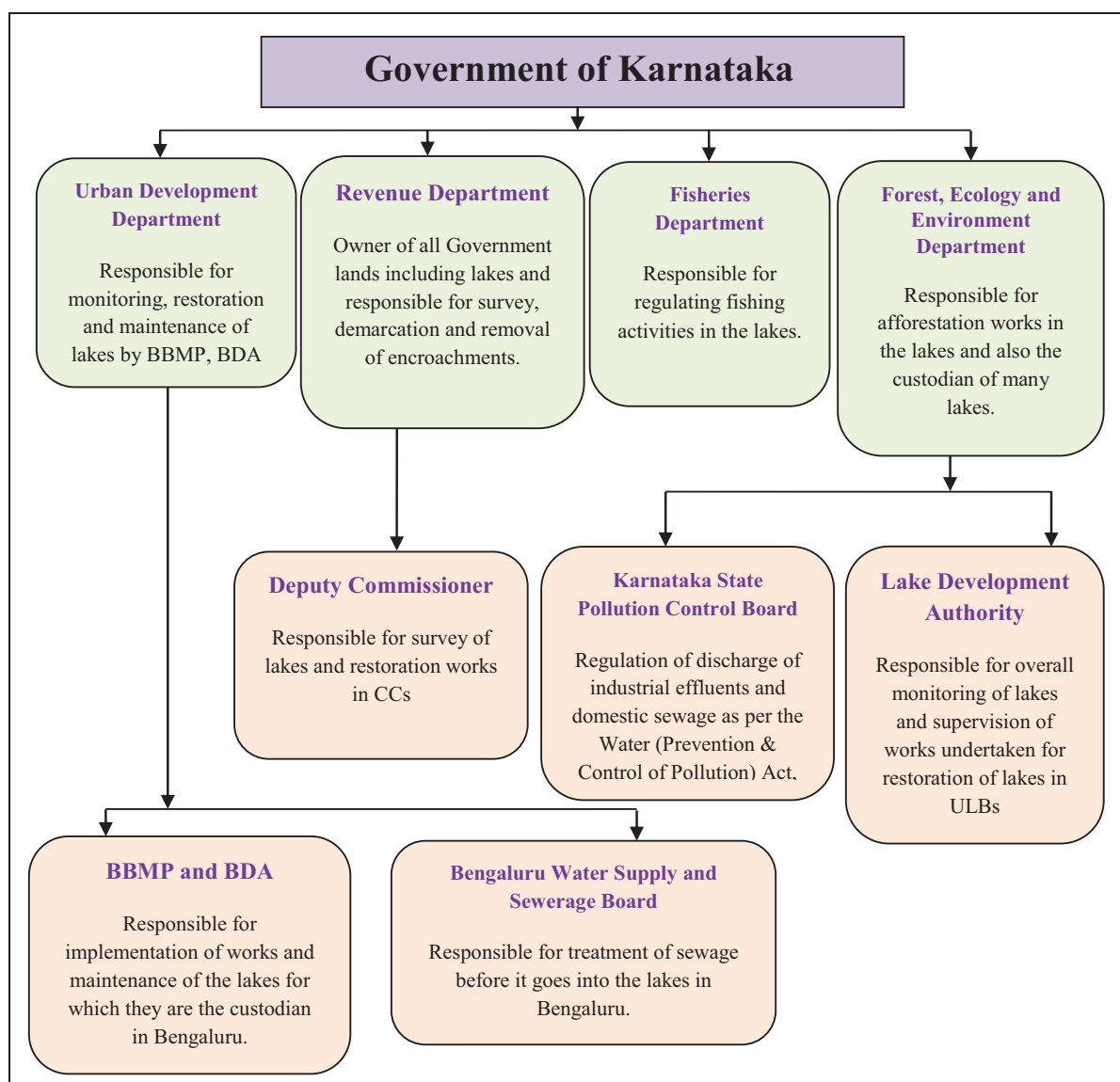
Chapter III

Effectiveness of institutional mechanism and legal framework in conservation and restoration of lakes

3.1 Entities involved in conservation and restoration of lakes

The responsibility of conservation and restoration of lakes in Urban Local Bodies (ULBs) including Bengaluru, vests with a number of Government departments and agencies. The powers and functions of these entities are elaborated in this Chapter. The entities involved and a gist of their roles are given in **Chart 1** below:

Chart 1: Entities responsible for conservation and restoration of lakes



3.1.1 Lake Development Authority

As per the Memorandum of Association and Bye-laws of Association of LDA (Bye-laws), LDA was established to exercise regulatory authority for all the lakes and act as planning and policy body to protect, conserve, reclaim, rejuvenate and restore lakes and its jurisdiction extended over the metropolitan area of Bengaluru including the green belt of Bengaluru and areas of CCs and City Municipal Councils (CMCs) in the State. LDA was required to restore the lakes by creating habitat for aquatic biodiversity including water birds and wild plants, monitor and manage water quality, create public awareness and involve community participation for lake conservation.

LDA has a Governing Council, headed by the Chief Secretary, Government of Karnataka and an Executive Committee headed by the Principal Secretary, Forest, Ecology and Environment Department. The Executive Committee functions as the Empowered Committee which provides technical guidance to LDA and scrutinises and approves Detailed Project Reports (DPRs) on lake conservation and maintenance.

Audit observed the following:

- The office of LDA is situated at Bengaluru and it does not have any branch offices though its jurisdiction is spread over other areas of CCs and CMCs in the State.
- It operates with skeletal staff which has not been reviewed by the State Government since its inception in 2002.
- LDA does not have any statutory powers. As a result, laxity in exercise of powers conferred as per Bye-law was observed.
- Environmental Planning was one of the objectives for which LDA had been constituted. LDA had not undertaken any integrated planning in association with all the entities involved in restoration of lakes.

While responding, LDA stated (December 2014) that because of these constraints, they only performed the role of a mediator between the public and the custodians of lakes. The State Government (UDD) admitted (March 2015) that the development of lakes was taken up based on fund availability and not based on any comprehensive planning. This indicated that the works were taken up in lakes in an *ad hoc* manner without prioritisation. The LDA subsequently replied (April 2015) that a proposal had been sent to the Government for sanctioning additional 60 posts and region-wise branches would be operated shortly.

3.1.2 Karnataka State Pollution Control Board

The KSPCB was required to assess the quality of water in the lakes periodically and report to the concerned agencies for taking follow up action. The agency was to levy penalties on the polluters of lakes.

- Audit observed that KSPCB monitored pollution levels in only 120 lakes out of 36,568 in the entire State which included 48 lakes in Bengaluru City.
- With regard to levy of penalties and action taken against polluters, KSPCB replied (May 2014) that they had filed a criminal case against BWSSB. However, no action was taken against the polluters of the lakes such as residential apartments which were pumping sewage directly into lakes like Horamavu-Agara Lake.

KSPCB stated (May 2014) that due to shortage of manpower and funds, the quality of water was not assessed in all lakes. The reply is not acceptable as it was the duty of KSPCB to perform its job properly and ensure adequate manpower by taking up the matter with the State Government.

Recommendation 1: In view of the fact that the KSPCB is unable to monitor pollution in all lakes due to shortage of manpower, it may consider taking inputs from other agencies carrying out assessment of pollution levels and water quality in lakes.

3.2 Revenue Department

Revenue Department is the owner of Government lands including water bodies. It is responsible for survey, demarcation of lake area and removal of encroachments in lake bed area. Audit observed that the department failed to carry out its responsibilities relating to conducting surveys and removing encroachments in lakes despite having mandate for the same.

The department stated (January 2015) that action is being initiated to create a separate cell with dedicated surveyors to complete the survey of lakes.

Inadequacies in survey, demarcation of lake area and ineffectiveness in removal of encroachments in lake beds are discussed in **Chapter IV** of this report.

3.3 Urban Development Department

The department is responsible for monitoring the development works of the lakes carried out by the implementing agencies such as BBMP, BDA and other ULBs under its jurisdiction. The lakes in the urban areas which were originally with the Minor Irrigation (MI) Department were transferred to agencies under UDD.

3.3.1 Bruhat Bengaluru Mahanagara Palike, Bengaluru Development Authority and City Corporations

Most of the lakes in Bengaluru were under the custody of BBMP and BDA. The lakes in ULBs (CCs and CMCs) outside Bengaluru were under the custody of the respective Deputy Commissioners (DCs). The DCs were responsible for development and restoration of lakes under their jurisdiction.

Audit observed the following deficiencies:

- BBMP had a dedicated Environment Cell and the work of conservation and restoration of lakes was overseen by the Chief Engineer, Lakes. But in BDA, there was no cell dedicated to lakes and the Engineer Member, assisted by four Executive Engineers, was responsible for development and restoration of lakes in addition to regular duties.
- The State Government directed (April 2010) that development and management of lakes may be carried out under close supervision of the Forest Department officials on deputation. However, only three and two forest officers were involved in restoration works of lakes in BBMP and BDA (up to 2011-12), respectively. The shortage of officials from the Forest Department is impacting the required ecological inputs for conservation, restoration and development of lakes.

Recommendation 2: Steps may be taken to introduce a dedicated cell in BDA for overseeing all the development and restoration works related to lakes with more Forest Department officials who are conversant with lake restoration works.

- No training related to ecological restoration of lakes was given to the officers of BDA, BBMP or other ULBs. It was observed that the restoration works carried out by these implementing agencies were mainly focused on engineering rather than ecological measures which is discussed in detail in **Chapter V**.

Recommendation 3: Action may be taken for the capacity building of the officials involved in lake restoration activities and the Government may consider engaging scientific research institutions and reputed educational institutions like Indian Institutes of Technology.

- There are six lake series in Bengaluru, each of which consists of a set of lakes. The restoration works in the lake series should be such that works in a downstream lake should be carried out after completion of restoration works of its upstream lake. This will ensure that the outflow of the upstream lake which flows into the downstream lake is free from pollution. However, it was observed that the distribution of lakes in the lake series was such that the upstream lake and the downstream lake was given to two different entities (BBMP and BDA) and restoration works were carried out independently without any coordination between the two agencies for ensuring proper planning and execution.

- As per the 2010 order, BDA was to transfer the lakes under their jurisdiction to BBMP for maintenance, as and when the developmental works were completed by BDA. However, even after communicating the completion of the development works, the transfer had not been effected till date (February 2015) citing financial constraints by BBMP. Of the test-checked lakes, it was observed that in three⁵ lakes, BDA had incurred an expenditure of ₹30.31 crore for their restoration. However, since the lakes had not been transferred from BDA to BBMP as per the above order, the jurisdiction for maintaining the lakes was with neither of these agencies, resulting in their maintenance being neglected.
- There were cases of damage caused to fencing around lakes as can be seen from the photographs given below. BBMP had not engaged watch and ward staff in all the restored lakes. BBMP replied (February 2015) that miscreants were entering the lake area and stealing the fence materials. This indicated that there were inadequate security measures for protecting the assets related to the lakes.



3.4 Non-coordination of all entities in restoration of lakes

The Bye-laws of LDA provide for integrated interventions and operational convergence with the departments/agencies concerned for integrated development and restoration of lakes. Lack of coordination among entities during restoration of lakes was observed by Audit as mentioned below:

- Implementing agencies were taking up conservation and development works in lakes in an *ad hoc* manner without adequate prioritisation and coordination with each other.
- Construction of sewage diversion channels was done by implementing agencies (BBMP and BDA) where BWSSB had already laid underground drainage (UGD) pipes. This has been dealt with separately in **Paragraph 5.6.2.**

⁵ Jakkur-Sampigehalli, Rachenahalli and Venkateshpura

- Fencing of lakes was done by BBMP and BDA without ensuring completion of survey, demarcation and removal of encroachments by Revenue Department. Details are given in **Paragraph 5.7.4**.
- Information on fishing rights in lakes given to fishermen by the Fisheries Department was not shared with the custodian of lakes.

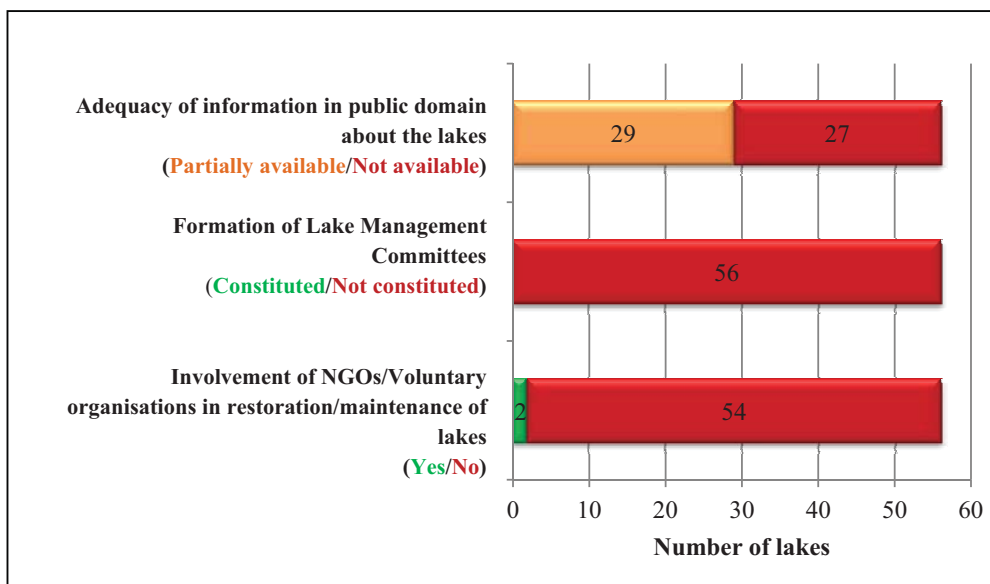
The Additional Chief Secretary, UDD stated during Exit Conference (February 2015) that coordination among all agencies was a must for integrated ecological restoration in lakes. The reply is not adequate as it was not ensured by the State Government.

3.5 Community participation in lake restoration

A successful conservation programme calls for active participation of the local community. The State Water Policy, 2002 talks about mobilising communities and stakeholder participation through user organisations by empowering them and providing training, technical support and creating public awareness.

The audit findings related to transparency and community participation are depicted in the **Chart 2** below:

Chart 2: Issues on transparency and community participation



There should be adequate information in the public domain for effective participation from local communities and voluntary agencies in activities which protect, preserve and conserve lakes. It was observed that the involvement of local communities and transparency in administration was minimal. The implementing agencies had not made adequate efforts in this direction. Following are the findings with respect to the test-checked lakes:

- Under the Public Disclosure Law, the ULBs were required to disclose the names of the existing water bodies like lakes, tanks, ponds, custodians of

lake, nature of works proposed, details of contractors, expenditure incurred, agencies involved in maintenance, grievance redressal contacts, *etc.*, on their websites. However, information on lakes of Bengaluru and the two test-checked CCs (Belagavi and Hubballi-Dharwad) in public domain was inadequate. Only minimal information such as names of lakes, budget and expenditure, jurisdictional officer's contact details were available on the website.

- An effective grievance redressal mechanism would enable citizens to voice their demands and help in public participation in restoration works. It was seen that BBMP, BDA and the two CCs did not have any mechanism to address complaints related to lakes.
- There was no single window agency to address the issues and grievances of public on lakes. The necessity of a single window agency was expressed by two Non-Governmental Organisations (NGOs) which were involved in maintenance of two test-checked lakes (Kaigondanahalli and Chinnappanahalli). BDA stated (February 2015) that the matter would be taken up at State Government level to constitute a single window agency for grievance redressal mechanism.
- Lake Management Committees, consisting of Residents' Welfare Association/Voluntary organisation and the implementing agency responsible for carrying out restoration and maintenance works in lakes, were to be formed as per the DPRs to provide inputs and guidance on restoration works of lakes. However, no such Committees were formed in respect of any of the test-checked lakes. The State Government (UDD) stated (March 2015) that monitoring committees have been formed in two test-checked lakes (Chinnappanahalli and Kaigondanahalli). It was, however, observed that these agencies were carrying out only maintenance works and were not involved in lake restoration works.
- "Adopt a Lake" Scheme was launched by LDA (July 2004), wherein interested parties were given custody of lakes for restoration. Six⁶ lakes of Bengaluru were taken up under the Scheme. The Scheme was not effective due to the inability of LDA to redress the problems⁷ faced by the adopting agencies. The State Government (UDD) admitted (March 2015) that the Scheme could not be implemented as planned. The LDA stated (April 2015) that these six lakes were taken back from adopting agencies as they had breached the terms and conditions in developing and maintaining lakes. The reply was silent about the steps taken by LDA to redress the problems faced by the adopting agencies.

The following recommendations are made with regard to community participation and transparency in administration:

⁶ Bairasandra Kelaginakere, Challakere, Kenchanahalli (Bachikere), Kundalahalli, Mahadevapura and Sheelavanthana

⁷ such as dumping of construction debris, burial of dead bodies in lake area, trespassers, *etc.*

Recommendation 4: The State Government must ensure that adequate information is available in the public domain to bring about transparency in administration.

Recommendation 5: The State Government should establish a single window agency for grievance redressal mechanism.

3.6 Monitoring of lake restoration works

Monitoring is an important instrument for Governments to ensure proper execution of their policies and implementation of their programmes.

The State Government had constituted (May 2013) an Apex Committee, sub-committees, and district level committees to oversee and supervise the restoration and maintenance of lakes in Bengaluru Metropolitan Areas, CCs and CMCs.

Audit observed the following deficiencies in monitoring of lakes:

- The Apex Committee had not called for periodical progress reports on restoration works from the implementing agencies. None of the implementing agencies had any methodical system of inspections and reporting.
- LDA had not inspected (2009-14) any lake except 747 lakes in Bengaluru (Urban) district.
- Only 22 out of stipulated 140 meetings were conducted in the year 2013-14 in 14 districts. The LDA accepted the audit observation and stated (April 2015) that the matter had been brought (March 2015) to the notice of the Apex Committee and reminders would be sent to the DCs concerned.

3.7 Financial management

The various entities responsible for the lakes conservation had their own budgets and contributed financially towards lake conservation-related activities. However, with no overall plan or budget made out for a lake involving all entities concerned, the funds expended by these entities tended to be uncoordinated thereby resulting in non-achievement of the desired objectives. Also, no assessment had been made for financial resources required and the available financial resources were also not managed properly.

As of March 2014, BBMP, BDA, LDA and two CCs (Belagavi and Hubballi-Dharwad) had 55, 123, 28 and 32 lakes under their custody and an expenditure of ₹165.83 crore, ₹53.19 crore, ₹14.71 crore and ₹1.14 crore was incurred by BBMP, BDA, LDA and CCs, respectively. Details of expenditure incurred on restoration works in the test-checked lakes are given in **Appendix 5**.

The examination of expenditure and receipts of implementing agencies indicated that financial management needs to be strengthened. Audit observed the following:

- The provisions of Karnataka Town and Country Planning Act, 1961 empowered the ULBs for collection of a cess/fee for rejuvenation of lakes and water bodies while granting permission for development of land and building from the owner of such buildings under their jurisdiction. However, no rules were framed for utilisation of the cess amount.
- BDA had not collected cess amounting to ₹33.09 crore during the period 2009-10 to 2013-14. The State Government (UDD) replied (March 2015) that cess was now being collected for rejuvenation of lakes.
- The Belagavi Urban Development Authority and Tumakuru Urban Development Authority had collected cess of ₹38.79 lakh and ₹3.17 crore, respectively during 2012-14. However, this amount remained unused as rules for its utilisation had not been framed.
- LDA collected ₹12.18 crore towards annual lease rent from lessees in four⁸ lakes as of August 2014, however this amount was kept idle. The LDA agreed (April 2015) to utilise the available funds.
- LDA had not collected (February/March 2014) the annual lease rents including interest thereon, from two lessees (M/s. Lumbini Gardens Limited and M/s. PAR.C), amounting to ₹48.64 lakh. On this being pointed out (April 2014) by Audit, LDA replied (August 2014) that ₹26 lakh had been remitted by the lessees during May/June 2014. The LDA further replied (April 2015) that notices had been issued to lessees for remitting balance amounts.
- DC, Belagavi retained lease rentals of ₹34.38 lakh in respect of Kotekere, Belagavi in a savings bank account without remitting it into Government account.
- GoI approved and released (February 2002) ₹44.04 lakh for conservation and management of Kamakshipalya Lake, Bengaluru under NLCP. The restoration work could not be taken up due to encroachments in the lake bed. Consequently, another proposal to develop an alternate lake was sent to GoI, which was rejected. Due to failure of State Government to ensure prevention of encroachments, the funds released by GoI had to be returned (April 2014), thereby losing the grant received for restoration work.
- An amount of ₹6.97 crore received (during 2002 to 2012) by LDA under NLCP grants remained unutilised as of March 2014. On this being pointed out by Audit, the LDA replied (April 2015) that the unspent amount, if any, would be reimbursed after obtaining UCs from implementing agencies.

⁸ Agara, Hebbal, Nagavara and Vengaihanakere

During Exit Conference (February 2015), the Commissioners of BBMP and BDA expressed constraints in getting financial support from the State and Central Governments for rejuvenation of lakes. However, the above instances indicate non-utilisation of even available resources.