

## 1.4 Wetlands Inventory, Assessment and Monitoring System

An integrated wetland inventory, assessment and monitoring system is proposed to be set up to address the overall information needs of wetland management and to provide robust decision support system for the same. Specific objectives and a detailed framework have been outlined in Chapter 5 of the management plan. The following activities are proposed:

### *1.4.1 Establishment of wetland monitoring and research centre*

To support monitoring and research activities related to EKW, a robust and upgraded laboratory is required to be established. However, the laboratory may be housed within the Institute of Environment Studies and Wetland Management, an Institute under the Environment Department which works in close coordination with the EKWMA.

### *1.4.2 Development of database management system*

A database system for storing, retrieving and analysing the WIAMS is proposed to be set up in a GIS environment. This will include:

- development of data quality management and assurance plan including specification of data collection objectives, data quality objectives, sampling programme design, data and metadata documentation procedure, data quality control methods and performance audit procedures;
- development of GIS based database management system

### *1.4.3 Wetland monitoring and evaluation*

Wetland monitoring and inventory protocols for land use and land cover, hydrological regimes, ecosystem processes and biodiversity and socio-economics and livelihoods as proposed in Section 5.2 will be implemented.

### *1.4.4 Surveillance system*

A mobile-based surveillance system for recording infringements to Wetlands (Conservation and Management) Rules, 2017 and East Kolkata Wetlands (Conservation and Management) Act, 2006 is proposed to be developed. The app-based system will enable „community wardens“ to transmit information on violations in EKW to EKWMA through geotagged pictures and related data. Drone mapping and other sophisticated technologies such as installation of CCTV will also be used for surveillance of land use change.

### *1.4.5 Ecosystem Health Report Card*

It is proposed to develop an Ecosystem Health Report Card, and publish annually to assess and communicate wetland monitoring information to decision-makers and stakeholders. The health report card summarizes indicators along major indices (water quality, catchment status, biodiversity status) which represent various ecosystem features of the wetland, and are reported against respective thresholds set in line with management goals.

Following activities are to be taken:

- Convening a methodology workshop for EKW wetlands monitoring unit for firming up variables to be used for assessment and data requirements
- Development of Ecosystem Health Report Card
- Report card publication
- Stakeholder dissemination workshop