



THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF WATER SUPPLY AND ESTATE INFRASTRUCTURE DEVELOPMENT



NATIONAL WATER SUPPLY AND DRAINAGE BOARD

**ADB - TA-6962 SRI: STRENGTHENING THE INSTITUTIONAL CAPACITY OF THE
NATIONAL WATER SUPPLY AND DRAINAGE BOARD**

**MANDATE OF THE ENVIRONMENTAL AND SOCIAL INSTITUTIONAL
FRAMEWORK**

MARCH 2024

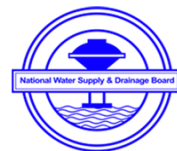


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Acronyms and Abbreviations

ADB	Asian Development Bank
AGM	Additional General Manager
CRWSSP	Climate Resilient Water Safety and Security Plan
CEA	Central Environmental Authority
DGM	Deputy General Manager
DMWCM	Demand Management and Water Conservation Measures
DRM	Disaster Risk Management
EMP	Environmental Management plan
ESIF	Environmental and Social Institutional Framework
ESD	Environmental and Social Unit
GBVH	Gender based Violence and Harassment
GESI	Gender Equality and Social Inclusion
GOSL	Government of Sri Lanka
KPI	Key Performance Indicator
NDC	Nationally Determined Contribution
NWSDB	National Water Supply and Drainage Board
RSC	Regional Support Centre
SSMP	Social Safeguard Management Plan
WASH	Water And Sanitation Hygiene
WASH+H	Water Sanitation Hygiene and Health
WSP	Water Safety Plan
WSS	Water Supply Scheme



MANDATE OF THE ENVIRONMENTAL AND SOCIAL INSTITUTIONAL FRAMEWORK OF THE NATIONAL WATER SUPPLY AND DRAINAGE BOARD

1 Introduction

This mandate outlines the purpose, goals, and principles of units in the NWSDB, guiding its efforts to integrate environmental sustainability and social responsibility into the organization's core operations and decision-making processes.

In response to the evolving landscape of sustainable development and the increasing importance of environmental and social considerations in the operations of the National Water Supply and Drainage Board (NWSDB), the establishment of an Environmental and Social Division (ESD) along with the Environmental and Social Institutional Framework (ESIF) of NWSDB is imperative.

This strategic initiative stems from the commitment of NWSDB not only to meet the water supply and sanitation needs in the country but also to ensure that these endeavours are conducted with the utmost environmental responsibility and social inclusivity.

1.1 Objective of the establishment of environmental and social institutional frame work

The proposed environmental and social institutional framework will be dedicated to meeting NWSDB's mission by ensuring the sustainable management of the environment and meeting the implementation of all the required Environmental and social safeguards during the planning, implementation and operation of water supply and wastewater systems maintaining water safety and security while ensuring total user satisfaction.

The objective of the establishment of an environmental and institutional frame work within NWSDB is to strengthen the NWSDB during all the phases of project implementation consisting of planning, designs, construction, operation and maintenance of water supply and wastewater systems with a special focus on the following key areas:

- a) Integration and implementation of environmental and social safeguards.
- b) Ensuring Climate Change Resilience and Disaster Risk Management.
- c) Ensuring Water Safety and Security.
- d) Fostering implementation of Integrated Water Resources Management (IWRM) at all levels.
- e) Ensuring Sustainable Ground Water Management
- f) Gender Equality and Social inclusion

1.2 Composition of the Environmental and Social frame work within NWSDB

The environmental and social institutional frame work within NWSDB will consist of all the units and sections actively involved in implementing the ESD mandate at the National, sub-national, regional and divisional levels while shouldering different roles and responsibilities as described in the annexure.



2 Mandate of the Environmental and Social Institutional Framework

2.1 Vision

To support the vision of the NWSDB to be the most prestigious utility organization in Sri Lanka through a model of existence in environmental and social inclusiveness, stewardship and social responsibility within the utility sector, positively impacting the environment and society, and contributing towards equality within the organization.

2.2 Mission Statement

Integrate environmental sustainability and social responsibility into all key areas of NWSDB in planning, designing, construction and operational activities focusing on safeguarding water quality, ensuring water quantity, integrating climate resilience, environmental and social safeguard while recognizing the importance of gender inclusiveness.

2.3 Values

The proposed mandate for the Environmental and Social Institutional Framework of NWSDB intends to maintain the following core values during all its operations.

I. Environmental Stewardship:

Will be committed to support protecting and preserving the water resources, local ecosystems, and the environment connected with all the Water and Wastewater systems of the NWSDB.

II. Ethical Conduct:

Will uphold the highest ethical standards ensuring Equity, transparency and integrity in all related actions.

III. Partnership with Agencies and Communities:

Actively engage with all the related national-level stakeholders including Ministry incharge for Irrigation, Mahaweli, Health, Environment, Disaster Preparedness and management, Climate Resilience and other Water management Panels, and facilitate Regional Support Centres (RSC) to work actively with beneficiaries, communities/ stakeholders at the regional and district level, prioritizing their needs and concerns.

IV. Innovation:

Seek and disseminate innovative strategies, practices and solutions to address environmental and social challenges in the water sector.

V. Employee Well-being:

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Prioritizing the health, safety and well-being of NWSDB employees, fostering a safe and inclusive workplace, while preventing violence and harassment at workplace for all. Also ESD will monitor that NWSDB to ensure occupational safety and health in all sites.

2.4 Scope of Responsibilities

As the custodian of the proposed mandate, NWSDB will take over full responsibility for the following deliverables.

I. Ensuring Water Safety and Security:

Aligned with its mandate mentioned above, ESD needs to ensure the security and safety of water from the source up to the end-user through facilitation, guidance, monitoring and verification of the implementation of Climate Resilient Water Safety and Security Plans (CRWSP) for every Water Supply Scheme (WSS), auditing of Sanitation Safety Plans (SSP) for every sewerage system and as an IWRM implementing entity, NWSDB as a stakeholder shall entrust ESD as a representative to coordinate with RSCC to cooperate and facilitate with Ministry in charge of Health to carry out the Water Quality Surveillance (WQS) and to facilitate WQS at the National level Committee. Also the NWSDB shall be an important and prominent member of WQS and District Environmental Committees; hence ESD shall represent NWSDB in those Committees.

II. Active in Climate Actions including NDC commitments:

As the Climate Change action focal point of the NWSDB, ESD will facilitate and support adaptation and mitigation measures within the organization in consultation with relevant stakeholders to address climate change impacts and support to achieve the Nationally Determined Contributions (NDC) commitments of the Government of Sri Lanka (GOSL). ESD will ensure a gender-equality and social-inclusion (GESI) lens is applied in all climate change adaptation and mitigation measures taken up.

III. Disaster Preparedness:

Disaster Risk Management Coordination working together with all the Regional Support Centres ESD will compile and update the overall disaster management plan for NWSDB regularly with required inputs as and when required to improve the Disaster Preparedness and Disaster Risk Management across the organization. Further national-level coordination with the Disaster Management Centre, Metrological Department and relevant stakeholders and the regions during the emergencies and monitoring of loss and damages will be a key responsibility of the ESD. The ESD will ensure a GESI lens is applied to where applicable to the disaster management plan of the NWSDB.

IV. Ensuring Efficient Water Use:

Promotion of water conservation and efficient use of water resources by developing, promoting and disseminating water conservation and Efficient Water Use practices, guidelines and practices within NWSDB.



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V. Environmental and Social Impact Reduction:

Ensure that all environmental and social safeguards requirements are met during service delivery from planning to operation of both water and wastewater systems, while ensuring the active participation of the general public. Also, assist in evaluating project proposals submitted to NWSDB for obtaining Environmental and Social Safeguard clearance. Further, guidance and support to environmental management, promote conservation of biodiversity and ensure the provision of ecosystem services in hotspot areas. Prepare platform to conduct awareness program for stakeholders and school children on water safety, conservation and water, sanitation, hygiene, and health (WASH+H). Adopt a GESI lens in environmental and social impact reduction measures applied in water and wastewater management systems.

VI. Ensuring Implementation of IWRM Concept:

Acting as the focal point for IWRM, ESD will foster implementation of IWRM in all the phases of project implementation at all levels of NWSDB linking at National Subnational and promoting joint action for water resources development including catchment protection.

VII. Community and Stakeholder Engagement:

Engage with the community and stakeholders to understand their water – related concerns, and provide education awareness and support for the project initiatives. Follow a GESI-approach in such engagements.

VIII. Social Responsibility:

Address social and community issues related to accessibility, affordability and Equity with social inclusiveness for WASH+H activities. Provide inputs for resettlement planning, monitoring and coordination for projects, including Grievance Redress mechanisms. Also, provide inputs for reviewing of social aspects of development project proposals. Further, monitoring the coordination of consumer satisfaction surveys carried out by the regions. Apply a GESI lens for social responsibility initiatives.

IX. Promote an enabling workplace for gender equity and social inclusiveness:

Create an institutional environment that safeguards gender equity and social inclusiveness (GESI), while preventing Gender-based Violence and Harassment (GBVH) in the work environment.

X. Focus on Health and Safety in all services delivery:

Ensure best practices are adopted by all related units of NWSDB that ensure the Health and Safety of its work force respective contractors and the general public during all its service delivery.

XI. Compliance and Reporting:

Ensure compliance with water quality and environmental regulations and standards and disseminate necessary information on performance to stakeholders. Ensure that sanitation

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safety meets national wastewater discharge standards through facilitation, guidance, monitoring and verification of implementation of Sanitation Safety Plans for every Wastewater Supply Scheme (WSS)

XII. Contribution to Policy Discussions and Revisions related to Water Resources, Environmental Management, Water Safety, Disaster Risk Management and Climate Resiliency:

ESD will represent the NWSDB in above mentioned policy discussions conducted by the relevant authorities and contribute to the revisions of such policies.

2.5 Service Commitments

With the operationalization of the proposed Environmental and Social Institutional Framework, NWSDB will make the following service commitments:

- I. To deliver high-quality water and wastewater services complying with the customer charter while preventing, minimizing and compensating the environmental impact arising from all activities.
- II. To actively engage with communities and stakeholders to address their water-related concerns to ensure total satisfaction.
- III. To uphold ethical conduct, transparency and integrity in all environmental and social activities.
- IV. To seek innovative solutions to address water-related environmental and social challenges.
- V. To prioritize the well-being and safety of the employees.

2.6 Key Performance Indicators

NWSDB will use the following key performance indicators to monitor impacts and performance of environmental, social, disaster and climate change impacts.

- I. Water quality compliance with SLS
- II. Compliance of wastewater discharges and sludge disposal with CEA regulations.
- III. Percentage of customers deviating with 24x7 supplies (%) or average allocated Supply (%).
- IV. Implemented Water Safety Plans
- V. Emergency response Plans
- VI. Reduction of average per capita consumption/ lpcd
- VII. Number of Environment GESI capacity training programs carried out
- VIII. Number of women in leadership positions at NWSDB

3 Annexure – 1: Organizational arrangement of the Environmental and Social Institutional Framework (ESIF)

3.1 INTRODUCTION

The proposed organizational arrangement of the Environmental and Social Institutional Framework (ESIF) of the NWSDB consists of the following different sections/departments of the NWSDB.

- a) Environmental and Social Division (ESD) headed by DGM(ESD) reporting to Addl.GM(P&P) consist of 3 divisions namely
 - 1) Water Resources and Environment
 - 2) Groundwater Resources
 - 3) Sociology and WASH Section
- b) CE (Sector Planning) and Manager (O&M) reporting to each DGM (RSCC) are bridging to ESD for Environmental, Water safety and Disaster Preparedness
- c) AGM (Laboratory Services) reporting to Addl.GM (Corporate Services) is bridging to report water quality
- d) DGM(HRM) reporting to Addl.GM (HRM) for to maintain NWSDB internal GESI policy

Roles and responsibilities and coordination, communication and reporting arrangements for each NWSDB unit/Division /Department are mentioned below;

3.2 ENVIRONMENTAL AND SOCIAL DIVISION (ESD)

As the principal arm of the Environmental and Social Institutional Framework (ESIF) of the NWSDB, the Environmental and Social Unit (ESD) will be headed by DGM(ESD) who will lead the ESD while reporting to Addl.GM (P &P). The ESD will consist of three different sections each headed by an AGM reporting to DGM(ESD) on the subject matters of (i) Water Resources & Environment, (ii) Ground water Resources and (iii) Social Safeguards, Social inclusiveness and WASH . It is expected that DGM (ESD) will be required to take the leading role on the following areas;

- a. Overall coordination of the Environmental Social Institutional Framework (ESIF) and Administration and Monitoring the activities of ESD
- b. Support overall coordination at national level with relevant stakeholders for Water Allocation, Disaster Management and Environmental Conservation and Climate Resilience.
- c. Overseeing all technical and Managerial functions of the ESD
- d. Contribution in Policy developments matters pertaining to ESD activities at national level.
- e. Enforcing water-related laws and policies to regulate water use and protect water resources.
- f. Capacity development of ESIF activities in coordination with Manpower Development and Training Division (MDTD).

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- g. Water Quality surveillance of the water supply schemes operated by the NWSDB and the facilitation of National Water Quality Management Process

Having identified the magnitude of the additional work recognized under this vital initiative, it is also proposed to allocate the following additional resources for the ESD as follows;

- a) Additional Manpower (as explained in detail in the annexure-2 and stated below)
- Chief Engineer (Disaster and Climate Risk Management)
 - Chief Sociologist
 - Engineer (Disaster and Climate Risk Management)
 - Engineer (Conservation)
 - Engineer (Environment)
 - Engineer (Water Resources) – presently covered by contract basis engineer
 - Chemist
 - Environment officer
 - Engineering Assistants (04 Nrs)
 - Hydro-geologist (2 Nrs) – vacant for the existing cadre

And the necessary supporting staff

- b) Additional transport facilities
 c) Relevant IT software and Hard-ware and other office furniture and equipment
 d) Accomodation of adequate office space

3.2.1 Water Resources and Environment Section

Water Resources and Environment Section

Key focus areas:

Overall technical and Managerial functions of the Water Resources and Environmental unit, Water Safety Plan Unit and Disaster and Climate Risk Management.

Staff details:

AGM (Water Resources and Environment) supported with four supporting units headed by Chief Engineers - 03
 Engineers -07
 Chemist -01
 Environmentalist -01
 Engineering Assistant – 06

Scope of works defining functions and tasks of the section;

Under the guidance of DGM(ESD) to provide overall technical and management guidance of the smooth functioning of water resources and environmental section while coordinating with all the related National agencies and other units of the NWSDB, monitor, facilitate, guide and assist Regional Support centres to resolve issues and improve performance in following areas with a holistic approach.

I. Water Resource and Environment Management,

- II. **Water Safety Plan,**
- III. **Disaster and Climate Risk Management.**

The scope of work also covers promoting and guiding the applied research in each key focus area by documenting and disseminating the best practices within the regional support centres of NWSDB. [Reporting to AGM (Water Resources and Environment) there will be four different working organizational units each headed by a Chief engineer supported by one engineer and engineering assistant to commence the activities mentioned. It is expected these units will be further expanded in the future depending on the need and the progress made]

Water Resources and Environment Unit

Key focus areas:

Functions of the Water Resources and Environmental unit

Staff details:

Headed by a Chief Engineer Reporting to Water Resource Environment AGM (Water Resources and Environment) the staff consist of

- CE (Water Resources and Environment)-01
- Engineer (Water Resources)-1, Engineer (Environment)-01,
- Engineer (Water Conservation)-01
- Environmentalist-01
- Engineering Asistant-02

The Scope of works defining functions and tasks of the Water Resources and Environmental Unit consists;

- I. Coordination at a national level with relevant national-level stakeholders on Water resource planning and development while working with the RSCs which involves activities such as obtaining water allocations and reviewing water budgets based on the principles of IWRM.
- II. Coordination at national level with relevant national-level stakeholders Environmental Conservation and pollution control.
- III. Guidance and support to RSCs on environmental management,
- IV. Working together with RSCs, promote, advocate, guide and adopt an integrated approach that considers the interconnectedness of water resources, land use, and ecosystems towards improving the reliability of water sources with a strong dialogue with relevant stake holders.
- V. Lead the development and continuous update of NWSDB's **National water resource inventory** in a GIS platform in close coordination with the IT section and RSCs. Establish a simple robust system for collecting and analysing data on water availability, usage, and quality. Implement monitoring programs to track changes and trends in water resources.
- VI. Working with RSCs, project future water demand based on population growth, industrial development, and agricultural needs also considering seasonal variations and changes in consumption patterns.
- VII. Analyse continuously the trends of water availability and seasonal variability with climate change match with the demand projections and propose feasible solutions such as infrastructure improvements or water resources demand management options for

- implementation by the NWSDB as appropriate.
- VIII. Based on the above findings make recommendations for the NWSDB for appropriate investments.
- IX. Conducting Environmental Impact Assessment (EIA) by outsourcing additional experts as required such as Botanist, hydrologist, microbiologist etc.
- X. Coordinate with central environmental authority on pollution control measures based on the level of criticality of raw water quality reported.
- XI. Carry out in-house water resource development with potential funding programmes and make preparations for future investments to meet the predicted demand deficits.
- XII. Monitor and report the NWSDB achievements on NDC to the relevant authorities.
- XIII. Promoting water conservation and efficient water use practices, introducing water-saving technologies and develop water foot prints.

Water Safety Plan Unit

Key focus areas:

Coordination and supporting RSC for the implementation of Water Safety Plan

Staff details:

Headed by a Chief Engineer Reporting to AGM (Water Resources and Environment), the staff consist of:

- CE (Water Safety Plan)-1,
- Engineer (WSP Monitoring)-1, Engineer (WSP Auditing)-1,
- Engineer (WSP Capacity Building)-1,
- Chemist -1
- Geologist (Support from Groundwater Section)
- Engineering Asistant-2

Scope of works defining functions and tasks of the Water Safety Plan unit consists of:

- I. Coordination at national level with relevant national-level stakeholders Environmental Conservation and pollution control.
- II. Guidance and support to RSCs on environmental management,
- III. Monitoring of implementation, guidance and verification of climate-resilient water safety and security plans implemented by regions including capacity development carried out through the Manpower Training and Development unit.
- IV. Monitoring of implementation, guidance and verification of sanitation Safety Plans implemented by regions, including capacity development carried out through the Manpower Training and Development Division.
- V. With potential donor assistance commence pilot catchment improvement programmes in critical catchments. Working jointly with RSCs and in collaboration with the key stake holders in the relevant water sheds to promote erosion control and sediment management to protect water bodies from siltation. Based on the success it is expected that this approach could be scaled up subsequently. This will also consist establishment of buffer zones along water bodies (riparian zones) with native vegetation to filter pollutants and reduce runoff while improving catchment retention capacities.
- VI. Facilitation of the National Water quality surveillance program with the establishment of coordination committees at district level consisting key stake holders including ministry of health under the chairman ship of the district secretary of each district to support on-going water safety planning in mapping of all potential polluters, monitoring and followup of corrective measures.



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- | | |
|-------|--|
| VII. | Reporting the progress of WSP activities to the WSP steering committee, and cooperate planning division. |
| VIII. | Water Quality surveillance of the water supply schemes operated by the NWSDB |

Disaster and Climate Risk Management Unit

Key focus areas:

Disaster preparedness, climate risk assessment, incident coordination, management support and assessment of loss and damages.

Staff details:

Headed by a Chief Engineer Reporting to AGM (Water Resources and Environment), the staff consist of:

CE (Disaster Preparedness & Management unit)-1

Engineer -1

Engineering Assistant-1

Scope of works defining functions and tasks of the Disaster Preparedness and Risk Management Unit consists of:

- I. This Unit will be mainly responsible for improving the Disaster preparedness of NWSDB including sharing of risk related information. Further with this arrangement it is expected that there will be a wider understanding of Disaster risk management coordination with Disaster Management Centre and the RSCC during the emergencies, and monitoring loss and damages.
- II. Guidance working along with each RSCC, this unit will be responsible for developing, implementing, and managing comprehensive disaster risk reduction and emergency response strategies to safeguard NWSDB's infrastructure, assets, and services.
- III. The work needs to be carried out by collaborating with, government agencies, and community stakeholders to ensure that the NWSDB is resilient to natural and man-made disasters.
- IV. Conducting risk assessments to identify potential hazards and vulnerabilities related to the operations of the major infrastructure of each RSCC of the NWSDB. Analysis of data and trends to assess the potential impacts of disasters on critical NWSDB's infrastructure.
- V. Provision of guidance to develop, and maintain comprehensive emergency response plans for various disaster scenarios in each RSCC for each water supply scheme and sanitation facilities. Coordinate with MDTD and other relevant NWSDB sections to ensure all staff members are adequately trained in emergency response procedures.
- VI. Identify measures to enhance the resilience of critical water /waste water infrastructure against disasters and climate change. Evaluate and recommend upgrades to infrastructure to meet disaster-resistant standards and climate resilience based on the criticality of impact and the risk based on world best practices as appropriate.
- VII. As a part of disaster preparedness, provide guidance to develop and implement appropriate communication strategies for disseminating timely and accurate information to the public, stakeholders, and NWSDB staff during emergencies.
- VIII. Implementation support for the Climate Change Resilient Roadmap (CCRR) for NWSDB and monitoring the progress.
- IX. Guide and advocate NWSDB on Implementation on water-saving measures during drought conditions, such as restrictions and public awareness campaigns.
- X. Advocate Water conservation and demand management programme during emergencies and climatic impacts.

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3.2.2 Groundwater Resources Section

NWSDB management has taken a commendable initiative to transfer the ground water unit to the development division to become a part of the proposed ESD division. The groundwater section headed by AGM (Groundwater Resources) needs to realign all current roles with special focus on following groundwater consolidation activities towards improving the reliability of current groundwater intakes used by NWSDB.

Groundwater Resources Section

Key focus area:

Overall technical and Managerial functions of the Groundwater Resource Section

Staff details:

Headed by AGM (Groundwater Resources), the staff consist:

AGM (Groundwater Resources),

Three Managers

- (i) Groundwater Investigation and Development,
- (ii) Groundwater Resource Studies and Monitoring,
- (iii) Groundwater Equipment and Resources

and other current staff

Scope of works defining functions and tasks in each focus area.

Under the guidance of DGM(ESD), the AGM (Groundwater Resources) needs to provide overall technical and management guidance for the smooth functioning of Groundwater resources section while coordinating with all the related National agencies and other sections of the NWSDB, monitor, facilitate, guide and assist RSCC to resolve issues and improve performance in the following areas with a holistic approach.

- I. Oversee groundwater investigation and development, groundwater resource studies and monitoring, groundwater plant and equipment management units.
- II. Overall supervision of the feasibilities of groundwater recharging focusing on production bore holes managed by NWSDB which is currently to be achieved by NWSDB for sustainable groundwater extraction.
- III. Initiate, Advice and oversee pilot programs for groundwater recharging under different funding programs and Establish demonstration centres in each RSC areas for groundwater recharging focusing on general public and school children awareness promoting groundwater recharging at household levels.
- IV. Establish and operationalize a groundwater monitoring of all the groundwater intakes managed by NWSDB and establish a and manage proper database.
- V. Coordination with RSCC for source development, conservation, extraction, recharging and maintenance of groundwater intakes.
- VI. Oversee the development and establishing of a plan on groundwater resources, operation and maintenance program including well head protection programs, flushing, and development of boreholes
- VII. Initiate and advice on preparation of SOPs and Guidelines for the groundwater activities.
- VIII. Develop strategy for the optimum use of plant and equipment including execution of mobilization in-between regions catering the priority requirements.
- IX. Optimize resource allocation to ensure cost-effective and sustainable groundwater operations. Coordinate efforts with engineering and maintenance teams to address

- technical aspects of groundwater infrastructure development and management.
- X. Liaise and prepare joint proposals with national and international donor agencies and institutes for obtaining funding for groundwater development, monitoring and study activities.
- XI. Overall supervision of procurement and budgetary measures of the Groundwater Resources Section.
- XII. Introduce new technology, advice on Research and Development (R&D) and comment on groundwater policy initiatives.
- XIII. Seeking opportunities and promoting sustainable business avenues.

The scope of work also covers promoting the application of best practices in all the activities related to ground water development and management and documenting and disseminating the best practices with all the key staff involved in the ground water section including RSCs.

I.

Groundwater Investigation and Development Unit

Key focus areas:

Investigation and Development of groundwater sources

Staff details:

Headed by a Manager (Groundwater Investigation and Development), the staff consists of:
 Manager (Groundwater Investigation and Development)

Engineer (Civil) - 01

Hydrogeologists- 02

Engineering Assistant (Civil) – 03

Engineering Assistant (Mechanical) – 01, and

Necessary supporting staffs

Scope of works defining functions and tasks of the Groundwater Investigation and Development unit consists of:

- I. Planning and supervision of reconnaissance surveys and preliminary investigations for groundwater resource identification.
- II. Planning and supervision detailed investigations including sound hydrogeological interpretations for sustainable development of groundwater sources.
- III. Planning and supervision of geo-structural surveys.
- IV. Execute detailed geophysical surveys.
- V. Verification of well construction against the groundwater investigation.
- VI. Give necessary assistance to surface water sections regarding stream flow measurements.
- VII. Oversee activities related to bed rock profiling, soil auguring and shallow tube well drilling.
- VIII. Conduct groundwater resource assessments including aquifer and pumping tests for sustainable management of groundwater sources.
- IX. Planning and execution of well efficiency tests
- X. Ensure compliance with permits and regulations governing groundwater extraction and protection is carried out at respective regions.
- XI. Ensure planned preventive maintenance of intake wells through, flushing, well development and re-evaluation of pumping disciplinary and with required budget allocations by the regional offices.

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- XII. Development of standard type drawings for groundwater well development.
- XIII. Imparting knowledge and new technologies to Hydrogeologists in RSCs regarding groundwater investigations and technological developments.
- XIV. Procurement of new geophysical and geological instruments.
- XV. Liaise with P&D section and other sections regarding planning and execution of geological surveys as per request.
- XVI. Participate in the planning and development of groundwater infrastructure projects working jointly with RSCC. Assess the need for new wells, rehabilitation of existing intakes, and the expansion of groundwater extraction facilities.

Groundwater Resource Studies and Monitoring Unit

Key focus areas:

Studies and Monitoring of groundwater

Staff details:

Headed by a Manager (Groundwater Resource Studies and Monitoring) the staff consist of:

Manager (Ground Water Resource Studies and Monitoring)

Hydrogeologist- 02

Engineering Assistant (Civil) – 01 and

Necessary supporting staffs

Scope of works defining functions and tasks of the Ground Water Resource Studies Unit consists of:

- I. Prepare monitoring plans and Monitor groundwater levels, extraction quantities, quality, and recharge conditions to understand the overall sustainability of the intake wells including establishment of a monitoring network.
- II. Study the monitoring results and Communicate findings and recommendations to decision-makers and regulatory bodies...
- III. Stay abreast of technological advancements in groundwater monitoring and management. Implement and leverage technology, such as remote sensing and data analytics, to enhance groundwater management practices.
- IV. Complying with water safety and security plans for every groundwater intakes. Oversee the design, construction, operation, and maintenance of groundwater wells carried out in the regions ensuring quality assurance.
- V. Implementation of wellhead protection measures as a part of the water safety plans for each groundwater scheme in coordination with relevant RSCC
- VI. Develop and implement strategies to protect groundwater from pollution and over-extraction improving awareness measures and other monitoring measures as mandatory requirements to be fulfilled by the NWSDB regions. Collaborate with environmental agencies, stakeholders, and the community to promote sustainable groundwater practices.
- VII. Planning and coordination of groundwater research and study activities in collaboration with R&D Section and preparation of research proposals.
- VIII. Identification of issues related to groundwater usage and finding solutions through analysis.
- IX. Engage in resolving groundwater related issues by giving technical inputs for decision

- making and policy development.
- X. Climatic vulnerability predictions of groundwater sources, identify the risks and recommending necessary migratory actions.
- XI. Development of conceptual groundwater models related to intakes for simulation of groundwater flow variations and recharge calculations.
- XII. Preparation/ Review and commenting of pre-feasibility and feasibility studies by RSCC and other proposals related to groundwater study and monitoring activities.
- XIII. Planning and proceeding on groundwater recharge studies and related method developments for source management.
- XIV. Planning, facilitation and supporting the MDTD for training and awareness programs related to groundwater for capacity building.
- XV. Engage with the public and stakeholders to raise awareness about groundwater issues.
- XVI. Provide educational materials and outreach programs to promote responsible groundwater use and conservation.
- XVII. Develop contingency plans for groundwater related emergencies including contamination events, coordinate response efforts with relevant authorities to mitigate the impact of emergencies, maintaining of incident register and estimation of loss and damages.

Groundwater Equipment and Resources Unit

Key focus areas:

Management of groundwater plant and equipment

Staff details:

Headed by a Manager

(Groundwater Equipment and Resources), the staff consist of:

Manager (Groundwater Equipment and Resources).

Engineer (Mechanical) – 01

Engineering Assistant (Mechanical) – 01

Engineering Assistant (Civil) – 01, and

Necessary supporting staffs

- I. Planning, monitoring, maintenance and management of groundwater plant, equipment, vehicles and resources including preventive maintenance, corrective measures and reporting.
- II. Energy saving recommendations for groundwater intakes and efficiency enhancement of groundwater equipment.
- III. Prepare specifications in coordination with NWSDB documentation section for borehole pumps, equipment, materials and other related monitoring systems.
- IV. Design and technological improvements for drilling equipment and mechanical systems.
- V. Development of type drawings for mechanical parts.
- VI. Procurement assistance of plant, equipment, tools, materials and services.



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- VII. Procurement management under the procurement entity of AGM(groundwater Resources)
- VIII. Quality acceptance and quality controlling of drilling equipment, tools and materials.
- IX. Stock management of materials and spare parts.
- X. Planning and execution of hand pump repairs and related activities in coordination with relevant regional groundwater offices following the 3-Tire system ensuring sustainability.
- XI. Administration and management of Groundwater workshop and providing technical support through emergency mobile repair crews with workshop facilities for mechanical breakdowns in regional groundwater Units.

3.2.3 Sociology and WASH Section

This section currently has limited staff needs to be further strengthened with the deployment of required additional staff and other resources to cater the new requirements of social inclusion, gender mainstreaming, WASH+H and behaviour change programs complying with world best practices. It is essential that this section also caters all the sociological inputs required during the planning, designing, construction and operation of all the Water and Wastewater systems which also covers all the Environmental and social safeguards, and Gender Equality and Social inclusion, WASH+H and behavioural changes that are required. The Sociology and WASH Section shall pay more attention to ensure community at large has a good image of NWSDB and its activities through consumer surveys and gap analysis and give guidance for improvements. The ESD shall support establishing the Grievance Redress Mechanisms (GRM) for drinking water supply and sanitation projects and other activities done by RSCC and act as a coordinator to GRM committee.

Sociology and WASH Section
<p>Key focus areas: Overall technical and Managerial functions in the Sociology and WASH section and supporting and guiding RSCC relevant staff</p> <p>Staff details: AGM (Sociology & WASH) supported with following staff Chief Sociologist – 01 Sociologist -01 Chief Sociologists and Sociologists in RSCC functionally reported to the AGM (Sociology & WASH).</p>
<p>AGM(Sociology and WASH) reporting to DGM (ESD)</p> <ol style="list-style-type: none"> I. Guiding, facilitating and supporting the Chief sociologists under each regional Addl.GM to implement the following programmes while working with sociologists in each Regional Support Centres : <ol style="list-style-type: none"> a) Complying with Social Safeguard principles and guidelines and addressing all the Gender Equility and Social Inclusion strategies in all Project implementations and all other interventions of the NWSDB. b) Address social and community issues related to accessibility, affordability and Equility with social inclusiveness for WASH+H activities and carry out awareness on WASH+H practices, program such as n and Water conservation practices focusing school children and communities c) Facilitation of the National Water quality surveillance program with the establishment of coordination committees at district level consisting key stake holders including ministry of health under the chairman ship of the district secretary of each district to support on-going water safety planning, measures for pollution control and monitoring of water quality. II. Jointly working with the MDT division develop and conduct training for the staff involved in Social Safeguards, GESI initiatives, WASH activities, Water Conservation and promoting efficient use ensuring their competence and adherence to protocols. III. Stay informed about current research and innovative practices related to social safe guards, gender equality and WASH+H practices in the water and sanitation sectors, applying relevant findings in the NWSDB's operations.

Mandate of the Environmental and Social Institutional Framework

- IV. Foster partnerships with external organizations and agencies working on social safe guards, gender-related issues, catchment management and WASH+H practices to leverage resources and expertise.
- V. Collect and analyse gender-disaggregated data to identify disparities and formulate new strategies for improvement. Regularly review and assess the impact of policies and initiatives on gender equality, making adjustments as needed to address challenges and enhance effectiveness.
- VI. Develop and implement gender-sensitive policies to ensure equitable access to water resources and opportunities for community focusing vulnerable groups.
- VII. Advocating for policies that support the improvement of water quality, sanitation, and hygiene practices at both local and national levels
- VIII. Conduct Bimonthly Meetings with Regional Chief Sociologists/ Sociologists of RSCC on progress achieved and provide required guidance and feedback. Outcomes need to be reported to all relevant Addl.GMs, DGM (ESD) and all the regional DGMs.
- IX. Provide inputs for resettlement planning, monitoring and coordination for projects, including Grievance Redress mechanisms.
- X. Provide inputs for reviewing of social aspects of development project proposals.
- XI. Monitoring the coordination of consumer satisfaction surveys carried out by the regions.
- XII. Apply a GESI lens for social responsibility initiatives.

3.2.4 Chief Sociologists under each Regional Addl.GMs

Regional Sociology:

Overseeing, guiding and supporting the sociological activities carried out by each region. Chief sociologist assigned under each Regional Addl.GMs authority area.

Chief Sociologists under each Regional Addl.GMs

The Chief Sociologists should guide all the regional level sociologists in each to strengthen NWSDB's activities on social responsibility, GESI focus, ethical standards, and community well-being. also the awareness programmes must be implemented to promote positive behavioural changes in the consumers when using water. This means that the following concerns are addressed during implementation of projects and any other physical activities carried out by the NWSDB during any development interventions.

- I. Facilitating communication between the NWSDB and local communities in each area to address concerns and gather feedback and identifying and managing relationships with various stakeholders, including community leaders, NGOs, and government bodies.
- II. Coordinate with the technical cells of NWSDB to strengthen gender Equity and social inclusion considerations in project designs and implementation activities.
- III. Ensure social impact assessments are conducted to where relevant to understand and mitigate potential negative effects of NWSDB projects on local communities. Ensure compliance with relevant social and environmental regulations, standards and practices. Address and resolve any social conflicts that may arise due to the NWSDB's activities.
- IV. Safeguarding human rights by identifying and addressing any potential violations associated with the NWSDB operations. (*This may consist issues such as water*

sharing with farmer organisation, property damages or siting a wastewater treatment plant where possible impacts are openly discussed with possible migratory measures to avoid any negative social impacts to develop the trust of the communities) Keeping stakeholders informed through regular reporting on social safeguard measures, progress, and outcomes will be extremely important to maintain trust on NWSDB by the communities.

- V. Practice GESI-sensitive measures in safeguarding the rights of communities.
- VI. Managing any resettlement and rehabilitation processes that may be required due to the implementation of projects by NWSDB ensuring fair compensation and support as per the guidelines. Apply a GESI lens for any resettlement and rehabilitation necessitated by NWSDB-led projects.
- VII. Collaborate with communities with a specific focus on the needs of women and girls, and socially disadvantaged communities, to understand their unique water-related needs. Ensure that water services are accessible to all,. Integrate gender considerations into all aspects of the NWSDB's operations, from project planning to implementation and any monitoring and evaluation measures undertaken..
- VIII. Plan and implement an annual public awareness calendar focusing school and other community segments on the following subject areas with the involvement of relevant experts from different units of the NWSDB. Apply a GESI-lens in developing and rolling out the public awareness programs.
 - a) Water safety and hygiene practices at Household including WASH related activities
 - b) Water Conservation and efficient water use practices
 - c) Environmental protection and pollution control
- IX. Facilitation of Water Quality Surveillance program and involvement in WQS committees at district level.



3.2.5 Addl. General Manager (HRM)

Human Resources Division
<p>Key focus areas: Overall technical and Managerial functions in the Human Resources Management Division.</p> <p>Staff details: Headed by Addl.GM (HRM) the staff details: DGM(HR / IR) AGM(HR / IR) Three Managers and other current staff</p>
<p>Deputy General Manager (HRM)</p> <p>As the head of Human Resource Management division Addl.GM(HRM) will be required to manage the implementation of Gender Equity and Social Inclusion programmes within the NWSDB as stipulated in the GESI policy and GESI strategy.., The Addl.GM(HRM) will be responsible for the implementation of following activities under the above programme.</p> <ol style="list-style-type: none"> I. Facilitate training programs conducted by MDTD to raise awareness among staff about gender issues and promote gender-inclusive work environment. II. Collect and analyse gender-disaggregated data to identify disparities and formulate strategies for strengthening gender equality within NWSDB. III. Implement the Zero Tolerance Policy against sexual harassment and establish mechanisms to address complaints of harassment and sexual harassment within the organization, and ensuring a safe and inclusive environment for all employees IV. Advocate for gender-responsive practices within NWSDB, emphasizing fair employment practices and equal opportunities for career advancement. V. Carry out annual Gender Audits to ensure GESI compliance within NWSDB. VI. Provide feedback to the Senior Management for periodic updates and improvements to the GESI policy and strategy.

3.2.6 Central Laboratory

Based on further studies carried out on the crucial role that has to be played by the ESD, it has been identified that the central laboratory headed by AGM (Laboratories) also needs to be bridged to become a part of the proposed ESD division while administratively reporting to Addl.GM (CS).

The purpose of this proposed move is to strengthen the current water quality monitoring system at the national level and synchronize the regional program to one national and basin-wise water quality monitoring that facilitates data sharing and establishes greater reliability of the water quality data. Accordingly, over and above current roles carried out by AGM (Laboratories) following new roles have to be carried out to strengthen the operation of ESD.

Laboratory Services Section

Key focus areas

Overall technical and Managerial functions in key focus areas of the Laboratory services

Staff details:

AGM (Laboratory services) supported with other staff allocated under the central laboratory

Scope of works defining functions and tasks in laboratory service area.

Reporting to Addl.GM (CS) AGM (Laboratory Services) will closely work with ESD to provide overall technical and management guidance of the smooth functioning of Water and Wastewater testing carried out within all NWSDB laboratories including plant-level laboratories. However on all the matters pertaining to ESD mandate AGM (Laboratories) will be responsible for sharing water quality data, analysis and issues to DGM (ESD) and communicate any climate / disaster related quality issues with ESD. More over as the head of the laboratory services of the NWSDB, AGM (Laboratory Services) needs to play a critical role in addressing various challenges faced by NWSDB related to water quality, infrastructure, and resources. In addition, AGM (Laboratory Services) is responsible to provide the necessary assistance for implementation and auditing of water safety plans. This service will be extremely important in managing effective and efficient laboratory services for both water and wastewater quality testing and certification which will entail the following roles and responsibilities.

- I. Liaise with CEA on Water quality monitoring and pollution control
- II. AGM (Laboratory Services) will oversee and ensure the implementation of the following activities with strong guidance and technical support through Chief Chemists currently assigned under each regional Addl.GMs.
 - a. **Quality Assurance in the testing of both water and waste water standards**
Review the results of on-going quality control measures in each regional and treatment plant laboratory to ensure the accuracy and reliability of water/wastewater testing procedures and develop common templates for improved procedures.
 - b. **Promote sustainable practices within laboratory operations.**
Guide each Chief Chemist to Work towards obtaining and maintaining ISO accreditation for all regional and plant laboratories of the NWSDB. Also Ensure and guide timely Implementation of preventive maintenance and calibration schedules for laboratory equipment to reduce downtime and ensure testing accuracy.
 - c. **Ensuring efficient and sustainable Resource Management in all the regional laboratories and plant laboratories**
Assign Chief chemist to ensure annual resource audits are conducted to provide guidance and advice to RSCs to efficiently manage limited resources available within regional labs. Same time foster collaboration with other units within the NWSDB such as water treatment, distribution, and wastewater treatment, to address overall water quality management comprehensively as a single organisation. This encourage a culture of continuous improvement within each regional and plant laboratory Implement ISO certification and regularly assess and update the entire laboratory processes, procedures, and technologies to enhance overall performance.



d. Emergency Response Planning:

Each Chief Chemists guides the development of contingency plans for responding to water quality emergencies, such as outbreaks of waterborne diseases or unexpected contamination events. Also, it is required to develop and regularly update emergency response plans for the laboratory to address unforeseen events that may impact water and wastewater quality. Further Coordinate with health authorities and emergency services to ensure a swift and effective response.

e. Mapping and identifying major pollutants in catchments related to NWSDB water intakes

Initiating action to maintain a database of major pollutants impacting WQ related to NWSDB water intakes and catchments and facilitation of WQ testing for prevention of Water related epidemics on request of Water Quality Surveillance (WQS) Committees.

f. Coordinate with the Chief Chemists to establish a system that shares water quality data among all the regions in a given basin.

III. Capacity Building:

Working with MPDT to develop and conduct training programs for laboratory staff within regions to enhance their skills in water/Waste water quality analysis collaborating with MPTD section to provide continuous professional development (CPD) on going education and training opportunities while keeping them updated on the latest testing methods, technologies, and industry advancements.

IV. Collaboration with Stakeholders:

Collaborate with government agencies, NGOs, and other stakeholders to share information, resources, and expertise. Participate in collaborative efforts to improve water quality at the regional or national level.

V. Ensure Data Transparency and Improve Credibility

Foster transparency by making data of both water quality and wastewater quality data accessible to the public. Communicate water quality information to consumers clearly and understandably. Also Establish communication protocols to keep customers and stakeholders informed about water and wastewater quality.

VI. Frequent Feedback Based on Infrastructure Assessment

Collaborate with regional support services centres to assess and address infrastructure challenges affecting the quality of drinking water delivered and waste water discharged. Same time provide input on infrastructure improvements and process improvements needed for better water treatment and distribution.

VII. Research and Innovation:

Update NWSDB management on emerging technologies in water and wastewater testing and promote research matters pertaining to water treatment and waste water treatment.

VIII. Conduct Bimonthly Meetings with Chief Chemists

AGM (Laboratory services) need to conduct a Bimonthly meeting with the chief

chemists on Water Quality and Waste water quality testing, monitoring progress achieved on each of the above six items and providing required guidance and feedback. Outcomes need to be reported to all relevant Addl.GMs, DGMs, DGM (ESD) and all the regional DGMs.

Regional Water Quality Unit

Key focus areas:

Overseeing the Water /Waste water quality testing carried out by each regional and plant laboratory.

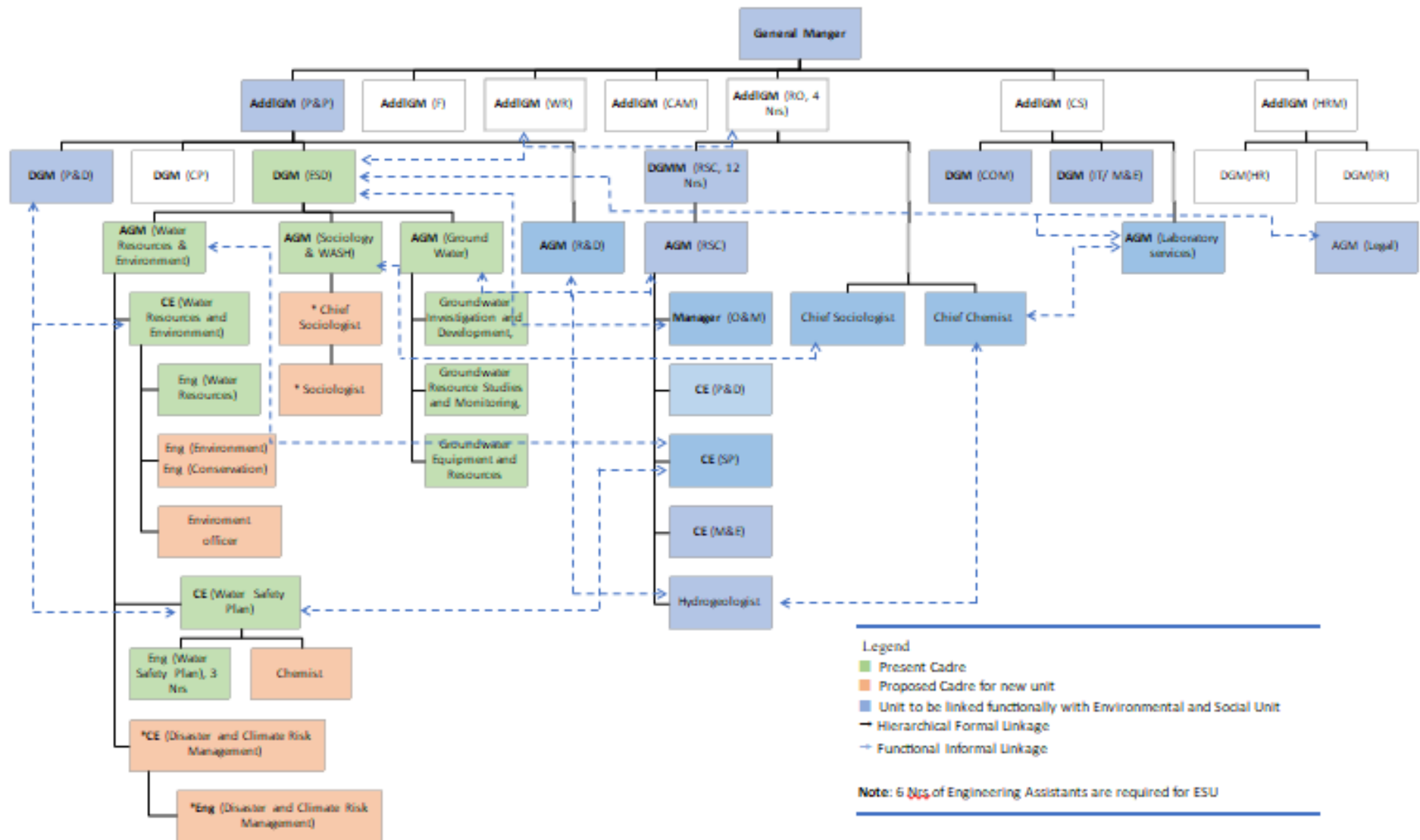
Staff details:

Chief Chemists assigned under each Regional Addl.GM

Reporting to each Addl.GM in charge of regional operations Roles and responsibilities of the Chief chemists under the guidance of the AGM (Laboratory Services) will be as follows

- I. Implement quality control process on current water and wastewater testing carried out as per the guide line provided. Review the ESDs of on-going quality control measures in each regional and treatment plant laboratory to ensure the accuracy and reliability of water/wastewater testing procedures and develop common templates for improved procedures in agreement with AGM (Laboratory Services).
- II. This activity will also cover the use of WhatsApp groups to share the agreed data reporting formats particularly among the water schemes established within the same water basin but under different RSCs. This system to continue until a new mobile App is developed.
- III. Report on all the deviations of the testing reports from both water and waste water quality standards. The reports also entail measures that could be done to ensure quality compliance where there are deviations.
- IV. Examine data generated by the laboratories to identify trends, outliers, or potential issues that may impact compliance, and advise the regions on common reporting procedures.
- V. Identify and inform on-going training needs of the regions, discuss new testing methodologies, for promotion of continuous learning among laboratory staff.
- VI. Guide regions or treatment plant staff on the Sample Collection Protocols: This is to ensure consistent and proper sample collection procedures are followed to maintain the integrity of water samples and subsequent analyses.
- VII. Conduct annual internal audits of laboratory procedures and documentation to identify and address any potential shortcomings and improvements required for establishing a robust quality management system. This report is to be made available for relevant key staff and the senior management for action and follow-up.
- VIII. Working with regional managers, regional chemists and CE (Risk management) contribute to disaster management plans to address each potential risks in relation to water quality and discharge quality standards. Same time map all the major pollutants for possible pollution control programme.
- IX. Carry out post audits on water quality complaints lodged at the NWSDB call centre by the while identifying root causes for water complains and making recommendations for required corrective measures.
- X. Conduct monthly meetings with all the regional chemists on the above-mentioned items and review the progress and report to Addl.GM, DGM(ESD) and AGM (Laboratory Services).

4 Annexure -2: Organization Chart Of The NWSDB Highlighting The Proposed Environmental And Social Intuitional Framework



- Legend**
- Present Cadre
 - Proposed Cadre for new unit
 - Unit to be linked functionally with Environmental and Social Unit
 - Hierarchical Formal Linkage
 - Functional Informal Linkage

Note: 6 Nos of Engineering Assistants are required for ESU