

 NU HOSPITALS Urinary & Kidney Care - Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

Abbreviations:

Abbreviations	Full Form
E&S	Environmental and Social
EHS	Environmental, Health, and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
GHG	Greenhouse Gas
GRM	Grievance Redress Mechanism
IFC	International Finance Corporation
IPC	Infection Prevention and Control
ISO	International Organization for Standardization
OHS	Occupational Health and Safety
SDGs	Sustainable Development Goals
SEP	Stakeholder Engagement Plan
VRF	Variable Refrigerant Flow
VRV	Variable Refrigerant Volume
UN	United Nations
DG	Diesel General Set
MSDS	Material Safety Data Sheet

Key Words: Environmental Management, Social Risk, IFC Performance Standards, Climate Risk, Grievance Mechanism, E&S Impact Assessment, Stakeholder Engagement, Legal Compliance, Sustainable Healthcare, OHS, IPC, ESMP, SEP, GRM, Monitoring & Evaluation

Level of personnel:

- Management Team Members: Oversight and approval of the ESMS and Responsible for ESMS implementation and coordination
- Department Heads: Integrate ESMS procedures into departmental operations
- All Hospital Staff: Compliance with relevant E&S policies and procedures

Designated areas: Hospital-Wide - All medical and non-medical departments, administrative units, maintenance & utilities, clinical laboratories, pharmacies, waste management areas, patient and visitor zones, expansion or new facility construction sites

Purpose:

This ESMS Framework is established to:

 NU HOSPITALS Urinary & Kidney Care -Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

1. Ensure systematic identification, assessment, and management of environmental and social risks across all hospital operations.
2. Align hospital operations with IFC Performance Standards, national regulations, and international best practices.
3. Enhance sustainability, ensure stakeholder wellbeing, and maintain compliance with environmental and social obligations.
4. Promote safe, ethical, and environmentally responsible healthcare delivery.
5. Foster transparency, accountability, and continuous improvement in E&S performance.

Core Components of the ESMS:

1. E&S Policy Commitment
2. Governance Structure
3. E&S Risk and Impact Assessment Procedures
4. Site Selection Criteria with E&S Considerations
5. Climate Change Risk Identification & Resilience Planning
6. Legal Register & Compliance Monitoring
7. Stakeholder Engagement Plan (SEP)
8. Grievance Redressal Mechanism (GRM)
9. Training and Capacity Building Framework
10. Monitoring, Reporting, and Continuous Improvement

Applicable policy:

The Environmental & Social Management System (ESMS) Policy for this hospital is grounded in the organization's core values of sustainable healthcare, social responsibility, legal compliance, and community engagement. The policy affirms the hospital's commitment to managing environmental and social (E&S) risks and impacts throughout its lifecycle—from planning and construction to full-scale operations and decommissioning, where applicable. This policy applies to all levels of personnel and all operational areas across the hospital

Environmental & Social Policy:

We commit to:

1. Preventing, minimizing, and managing adverse E&S impacts
2. Promoting resource efficiency and sustainable healthcare operations
3. Respecting the rights, dignity, and well-being of all stakeholders
4. Complying with all applicable legal and regulatory requirements
5. Ensuring continuous improvement through monitoring and stakeholder feedback

 NU HOSPITALS Urinary & Kidney Care -Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

Governance & Responsibilities:

The hospital's E&S responsibilities are overseen by a Management team members reporting to the Hospital Managing Director and Group Medical Director. All department heads are responsible for implementing relevant parts of the ESMS within their units.

Key Commitments:

1. Environmental Protection

- Avoid and minimize pollution, emissions, and waste
- Promote energy efficiency, water conservation, and sustainable resource use
- Protect biodiversity and ecosystem services

2. Social Responsibility

- Respect human rights and labor standards
- To avoid forced labor, child labor, and discrimination
- Promote community health, safety, and security
- Engage in meaningful stakeholder consultation and grievance redress

3. Compliance and Due Diligence

- Adherence with all applicable national laws and regulations
- Our organization will align with the IFC Performance Standards:
 - ❖ PS1: Assessment and Management of E&S Risks and Impacts
 - ❖ PS2: Labor and Working Conditions
 - ❖ PS3: Resource Efficiency and Pollution Prevention
 - ❖ PS4: Community Health, Safety, and Security
 - ❖ PS5: Land Acquisition and Involuntary Resettlement
 - ❖ PS6: Biodiversity Conservation
 - ❖ PS7: Indigenous Peoples
 - ❖ PS8: Cultural Heritage
- Conduct E&S due diligence for all projects and investments.

4. Monitoring and Continuous Improvement

- Establish measurable objectives and targets
- Monitor, evaluate, and generate report E&S performance regularly
- Review and update the ESMS Quarterly in all units

 NU HOSPITALS Urinary & Kidney Care -Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

Risk & Impact Identification and Management in NU Hospitals

ESIA for Hospital upcoming Projects

Conducting Environmental & Social Impact Assessments (ESIA) for major projects and expansions is a critical step in identifying, predicting, and managing potential environmental and social risks before a project begins. NU Hospitals has adopted the below mentioned steps to follow this in the future projects

1) Project Overview

- Location should be thoroughly verified Urban/rural, proximity to communities or sensitive areas
- Capacity: Number of beds, departments, operating hours to be defined well in advance and the same to be incorporated in the project proposal
- Key infrastructure: Water, sanitation, energy systems, access roads all of the basic requirements will be considered for proposal of the new project

2) Legal and Institutional Framework: All required legal requirements will be looked and taken approvals as needed

- National healthcare and environmental regulations
- IFC Performance Standards (PS1-PS8)
- WHO health facility guidelines
- Relevant international health and safety standards
- Municipal permits and zoning approvals

3) Baseline Studies: Before starting the new project baseline studies (pre construction data collection) will be performed that includes

- Environmental: Air quality, noise levels, surface and groundwater, vegetation
- Social: Population, vulnerable groups, access to healthcare, education
- Infrastructure: Road access, emergency response facilities
- Health: Prevalent diseases, healthcare needs, COVID/post-pandemic implications

4) Stakeholder Engagement Plan (SEP): Important step of the entire process making the community aware on the new project and collection of the feedback

5) Impact Identification and Assessment: Key environmental & social risks in hospital projects are

- **Environmental:**
 - ❖ Medical waste (biohazards, sharps, pharmaceuticals)
 - ❖ Water use and wastewater (sterilization, sanitation)

 NU HOSPITALS Urinary & Kidney Care -Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

- ❖ Air emissions from backup generators and incinerators
- ❖ Construction dust/noise
- **Social:**
- ❖ Construction phase disruptions (traffic, safety)
- ❖ Labor conditions (health workers, cleaners, waste handlers)
- ❖ Community safety (access, emergency plans, security)
- ❖ Gender-based considerations (maternity, patient privacy)

6) **Mitigation Measures:** there are lot of mitigation measures undertaken in the existing unit plans for new project, refer to the detailed plan covering waste management, emergency response planning, water management, energy conservation etc.. **ESMPs**

7) **Monitoring and Reporting:**

- Periodic environmental audits will be performed to verify the compliance towards the standards
- Monitoring noise, air, water quality etc..

8) **Grievance Redress Mechanism (GRM):**

- Staff grievance system is in place, the committee will take care of any grievances reported and the MOM will be maintained if any grievances found the data will be maintained by HR team
- Patients are reporting any grievances through internal feedback system and also they can provide the complaints by using any social media channels for more information refer patient feedback and redressal committee scope and details
- Feedbacks are openly discussed and transparency will be maintained

9) **Emergency and Community Health Management Plan:**

- Infectious disease outbreak plans are available and process is in place
- Disaster management plan is in place according to the location specific
- Community health education campaigns will be carried over by NU Hospitals in different levels

Initial and periodic risk screenings of operations by the project and management team:

Performing initial and periodic risk screenings of operations is a proactive approach to identifying, assessing, and managing environmental and social (E&S) risks throughout the lifecycle of a project Here are the **key points** you'd typically include when performing **initial and periodic E&S risk screenings**:

- Define Scope of Screening: type of facility, activities being screened, spatial scope
- Review Regulatory like local laws, health and safety regulations and IFC Requirements

 NU HOSPITALS Urinary & Kidney Care - Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

- Identify Key Risk Areas: environmental risks, social risks, occupational health & safety (OHS)
- Screening Methodology to be defined: site inspections, review of incident logs and previous assessments, interviews with staff and management, review of operational data
- Risk Categorization to be noted like, High / Medium / Low risk levels
- Mitigation/Corrective Actions to be put in place for any high/medium risks, propose actions should include: engineering controls, administrative controls, additional assessments
- Monitoring and Follow-Up step to be added in the process
- Risk Register of the hospital to be updated as and when reported or identified
- Stakeholder Communication will be done when required that includes internal and external stakeholders
- Will maintain all records as defined in the process and keep the documents up to date

Environment and Social Management Plans (ESMPs)

Environmental Management Plans

1) Biomedical Waste Management

- Strict adherence to Biomedical Waste Management Rules (2016, amended 2018)
- Color-coded waste segregation
- Partner with authorized waste treatment and disposal facilities
- Staff training on handling and disposal protocols

2) Water Management

- Water meters installation is done at the mouth of water source
- Water leaks in the hospital will be contained throughout the day and night by the maintenance personnel on duty
- Reusing treated waters gardening and washings
- On-site Effluent Treatment Plant (ETP) or Sewage Treatment Plant (STP) provided
- Regular water quality testing, especially for drinking and dialysis use are done monthly and quarterly including endotoxin test.
- Rain water harvesting available and using for ground water recharging

3) Energy Management

- Energy-efficient lighting LED, HVAC systems (VRF and VEV)
- All medical equipments and power generating assets are equipped energy 3+ star saving parameters
- Use of renewable energy sources like solar panels, solar emergency lighting systems
- Natural ventilation by providing wide illuminated windows
- Staffs are advised to use day lighting to maximize natural light

 NU HOSPITALS Urinary & Kidney Care -Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

4) Air Quality & Emissions

- Stack monitoring for DG
- Air Ambient check yearly done
- Installation of HVAC systems in critical care areas
- Monitoring indoor air quality, especially in OTs and ICUs

5) Hazardous Chemical Management

- Inventory provided for all relevant department and MSDS (Material Safety Data Sheets) for all chemicals.
- Emergency spill response plans by activating code orange as per hospital emergency alert color code policy

6) Green Procurement & Sustainability

- Use of eco-labeled, non-toxic cleaning agents
- Minimizing single-use plastics
- Digital records to reduce paper waste
- Using recycled papers wherever required
- Using authorized

Occupational health and safety (OHS) and infection prevention and control (IPC) to be integrated into the ESMS:

Integrating OHS and IPC into the ESMS is essential—especially for healthcare projects like hospitals. It ensures the protection of staff, patients, contractors, and surrounding communities

Key points for integrating OHS and IPC into the ESMS:

- Safety manual of the hospitals consists of occupational health and safety of the hospital
- Risk Assessment and Hazard Identification: team of safety will conduct hazard assessments and identification like biological hazards, chemical hazards and physical hazards
- Roles and responsibilities of the team will be defined and assigned for the same
- Infection control manual will consist of all aspects of infection control and prevention in the hospital
- Training for all new joiners and existing staffs will be conducted on the safety related topics every 6 months once and at the time of induction
- There are different key performance indicators are captured and monitor for their compliance
- Emergency preparedness and response plan is in place and demonstration of the same will be done as per the policy of disaster management plan
- Worker Engagement will be looked at when there is requirement based on the different situation

 NU HOSPITALS Urinary & Kidney Care - Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

- Grievance Mechanism for staffs and patients is available and there is a separate committee which handles exclusively on this
- Medical Surveillance for all staffs and health programs - refer HR manual and HIC Manual

Decarbonization:

A decarbonization strategy at NU Hospitals is implemented to reduce the carbon emissions and transition towards a low carbon eco system. It involves a range of measures, including switching to low-carbon energy sources, improving energy efficiency, and potentially investing in technologies like carbon capture. The ultimate goal is to target net-zero emissions

Reducing Carbon Emissions:

- a) **Low-carbon energy:** Shifting from fossil fuels (coal, oil, gas) to renewable energy sources like solar, which is implemented at all units of NU Hospitals Private Limited
- b) **Energy efficiency:** Improving the efficiency of energy use in buildings by having large windows and ventilation and usage of energy efficient air conditioners and motors, pumps, etc and transportation needs utilizing electronic vehicles
- c) **Process optimization:** Improving the efficiency of processes to reduce energy consumption and emissions
- d) **Fuel switching:** Transitioning to low-carbon fuels, such as electric vehicles, in transportation

NU Hospitals during its visit to stake holder sites will look into and gather information on adopted emissions reductions like:

- a) **Supply chain decarbonization:** Addressing emissions from suppliers, manufacturers, and distributors
- b) **Product and service life cycle:** Analyzing the carbon footprint of products and services from raw material extraction to disposal
- c) **Employee commuting and business travel:** Implementing measures to reduce carbon emissions from employee travel - maximum use of Metro Rail and E-Bus facilities
- d) **Afforestation and reforestation:** Planting trees at camp sites and in premises to absorb CO₂ from the atmosphere
- e) **Involving stakeholders:** Engaging with employees, customers, suppliers, and other stakeholders in the decarbonization journey

References:

1. International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (2012)
2. World Bank Group Environmental, Health, and Safety (EHS) Guidelines for Healthcare Facilities

 NU HOSPITALS Urinary & Kidney Care - Transplant Center			Environmental & Social Management System (ESMS) Framework Policy		Administration	
					NUH-EP-D-ADMIN-PO-01	
Prepared by	Ms	Pavithra S	Version: 01	Effective date	23/04/2025	
Approved by	Mr	Narayanamurthy		Reviewed date	-	
Reviewed by	-	-		Next review	22/04/2027	

3. ISO 14001: Environmental Management Systems - Requirements with Guidance for Use
4. ISO 45001: Occupational Health and Safety Management Systems
5. Equator Principles (for financial institutions-backed healthcare projects)
6. WHO Guidelines on Health Care Waste Management
7. National Environmental & Healthcare Regulations (Country-Specific)
8. UN Sustainable Development Goals (SDGs) - particularly Goals 3, 6, 12, and 13

Signature of Managing Director
Dr Prasanna Venkatesh