

|

MEGHALAYA HEALTH SYSTEMS STRENGTHENING PROJECT

(P173589)

Environmental and Social Management Framework (ESMF)

Draft Report

October 2020

Table of Content

ABBREVIATIONS AND ACRONYMS	iv
Executive Summary	vi
1 Introduction	1
1.1 Background	1
1.2 Environmental Profile of Meghalaya	1
1.3 Socio-Cultural and Demographic Profile of Meghalaya	3
1.3.1 Demographic Profile	3
1.3.2 Tribes of Meghalaya.....	3
1.3.3 Religion.....	4
1.4 Health Status in Meghalaya	4
1.5 Health Care Facilities in Meghalaya	6
1.6 Protected Areas and Historic Sites.....	8
2 Project Description	10
2.1 Purpose of the ESMF.....	10
2.2 Approach and Methodology	11
2.3 Project Components	12
3 Legal and Regulatory Framework	17
3.1 Indian National Regulations and Standards.....	17
3.2 Meghalaya State Specific Laws and Regulations	27
3.3 The World Bank’s Environmental and Social Standards (ESS)	28
3.4 Guidance Related to COVID19	33
4 Environmental and Social Baseline	3735
4.1 Key Health Sector Challenges in Meghalaya.....	37 35
4.2 Waste Management in Meghalaya.....	37 35
4.2.1 Solid Waste Management.....	37 35
4.2.2 Bio-Medical Waste Management	38 36
4.2.3 Segregation and Collection of Waste.....	40 38
4.2.4 Storage and Transportation of Bio-medical Waste.....	41 39
4.2.5 Treatment and Disposal of Bio-medical Waste.....	42 39
4.2.6 Occupational and Health Safety Measures.....	42 40
4.2.7 Other Environmental Aspects.....	43 41
4.2.8 Infrastructure Condition and Access.....	44 41
4.3 Status of Women in Meghalaya.....	46 43
4.3.1 Women work participation rate	46 43

4.4	Current Information Education and Communication (IEC) Mechanism	<u>4644</u>
5	Assessment of Environmental and Social Risks and Impacts	<u>4845</u>
6	Environment and Social Management Plan (ESMP)	<u>5956</u>
6.1	Prohibited Activities under the Project.....	<u>Error! Bookmark not defined.77</u>
7	Framework Procedures For Environmental And Social Management	<u>8778</u>
7.1	Environmental and Social Management procedures.....	<u>8778</u>
7.2	Sub-project Screening and Categorization	<u>9080</u>
7.3	Sub-project Implementation, Monitoring and Reporting.....	<u>9080</u>
8	Stakeholder engagement and grievance redress mechanism	<u>9181</u>
8.1	Key Stakeholders.....	<u>9181</u>
8.2	Stakeholder Consultation During Preparation.....	<u>9181</u>
8.3	Stakeholder Engagement Plan (SEP).....	<u>9888</u>
8.4	Grievance Redress Mechanism	<u>9888</u>
8.5	Process of Disclosure	<u>9988</u>
9	Institutional Arrangements, Responsibilities and Capacity Building	<u>10190</u>
9.1	Institutional Arrangement	<u>10190</u>
9.2	Training and Capacity Building.....	<u>10190</u>
9.3	Indicative Budget	<u>10190</u>
	Annexures	<u>10291</u>
	Annex I: SUB-Project Screening FormAT	<u>10291</u>
	Annex-II: Labor Management Procedures (LMP).....	<u>10896</u>
	Annex-III: Stakeholder Consultations During Preparation	<u>115103</u>
	Annex-IV: health care facilities wherE baseline conducted.....	<u>117105</u>
	Annex-V: Generic Biomedical Waste Management Plan.....	<u>118106</u>

ABBREVIATIONS AND ACRONYMS

ADC	Autonomous District Council
ANC	Antenatal care
ANM	Auxiliary nurse midwife
ASHA	Accredited social health activist
BMW	Bio-medical Waste Management
BMWM	Bio-medical Waste Management
CBMWTF	Common Bio-medical Waste Treatment Facility
CERC	Contingent Emergency Response Component
CHC	Community Health Centre
CMO	Chief Medical Officer
CPCB	Central Pollution Control Board
CPHC	Comprehensive Primary Health Care
CTF	Common treatment facility
DH	District Hospital
DMHO	District Medical and Health Officer
DOHFW	Department of Health and Family Welfare
E&S	Environmental and Social
EIA	Environmental Impact Assessment
ESF	Environmental and Social Framework of World Bank
ESG	Environmental, Health, and Safety Guidelines
ESMF	Environmental and Social management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
ETP	Effluent Treatment plant
FPIC	Free, Prior, and Informed Consent
GBV	Gender Based Violence
GDP	Gross Domestic Product
GHADC	Garo Hills Autonomous District
GoI	Government of India
GoM	Government of Meghalaya
GRM	Grievance Redress Mechanism
HCF	Health Care Facility
HR	Human Resource
HRH	Health Human Resource
HWC	Health and Wellness Centre
ICC	Internal Complaints Committee
ICT	Information and communication technology
IEC	Information, Education, and Communication
IMR	Infant Mortality Rate
IPA	Internal performance agreement
IPF	Investment Project Financing
IPM	Internal Performance Management
IT	Information Technology
JHADC	Jaintia Hills Autonomous District
JSSK	Janani Shishu Suraksha Karyakaram
KHADC	Khasi Hills Autonomous District Council
LCC	Local Complaints Committee

LDHF	Low-dose-high-frequency
LMP	Labor Management Procedure
MH	Maternal Health
MHIS	Megha Health Insurance Scheme
MMR	Maternal Mortality Rate
MO	Medical Officer
MOHFW	Ministry of Health and Family Welfare
MS	Medical Superintendent
MSPCB	Meghalaya State Pollution Control Board
NCD	Non-communicable diseases
NGO	Non-governmental Organization
NHM	National Health Mission
NQAS	National Quality Assurance Standards
OHS	Occupation and Health Safety
OOPE	Out-of-pocket expenditure
OSC	One Stop Centre
PDO	Project Development Objective
PHC	Primary Health Centre
PMU	Project Management Unit
PPE	Personal Protective equipment
PPP	Public Private Partnership
RKS	Rogi Kalyan Samiti
SBCC	Social and Behaviour Change Communication
SC	Sub-Centre
SEA	Sexual exploitation and abuse
SEP	Stakeholder Engagement Plan
SH	State Hospital
SH	Sexual harassment
SOP	Standard Operating Procedure
STP	Sewage Treatment Plant
TFR	Total Fertility Rate
TNA	Training need assessment
VC	Village Council
VHSNC	Village health, nutrition and sanitation committee
WCD	Women and Child Development
WHO	World Health Organization

Meghalaya Health Systems Strengthening Project Environmental and Social Management Framework

Executive Summary

The World Bank is planning to provide support to the Government of Meghalaya (GOM) for Strengthening the public health system in the state. The proposed project will benefit the entire state of Meghalaya with primary focus on improving institutional system and processes of health care delivery system as well as focus on strengthening the 11 district hospitals, 23 CHCs and 70 PHCs across the state. Systems will also be strengthened in the MHIS which is currently used by 56 percent of families in the State. The project will also benefit the health sector staff, specifically at the secondary and primary levels, by strengthening their capacity and provide them skill-based training. The investment at the health facility level to improve infrastructure, private sector partnerships, technology solutions, and improved working conditions will improve their efficiency and satisfaction level and provide better quality care. The community level intervention that follows the integrated approach for child development also provide focused health and nutrition service for mothers. This will benefit the women and children through focused intervention.

The key implementing agency for the project is the Department of Health & Family Welfare (DOHFW), Government of Meghalaya. The project development objective (PDO) is to “improve accountability, quality, and therefore utilization of health services in Meghalaya”. The project has following the components:

Component 1: Improving accountability and strengthening governance of health services through Internal performance agreements transforming the ecosystem of health service delivery. This component focuses on reforms in governance, management and accountability using internal performance agreement (IPA) tool such as performance-based contracts and result based financing (RBF) to have a positive impact on service delivery. These will constitute IPAs between the DoHFW and implementing institutions that will foster a spirit of more accountable government, and result based monitoring, leading to improvements in service delivery, quality and utilization.

Component 2: Strengthening Systems to Sustain Quality of health service. This component will focus on quality certification of identified facilities and strengthening the capacity of different aspect of health systems that are prerequisites for delivering quality services.

Component 3: Increasing coverage and utilization of quality health services. This will focus on Improving coverage and strengthening institutional capacity of the Megha Health Insurance Scheme (MHIS) and pilot community level intervention for health and nutrition services.

Component 4: Contingent Emergency Response Component. Provision of immediate response to an Eligible Crisis or Emergency, as needed.

The project will finance a range of activities. The proposed project activities and interventions will improve management and accountability of the healthcare system in the State by strengthening the structure and system associated with health care delivery, enhancing capacities of healthcare providers and healthcare managers, integrating and improving the health management information system and improving the quality of and access to health services. In hard-to-reach and remote areas, community-driven and public-private partnership approaches will be introduced to ensure access to and quality of healthcare services. The project will support (a) minor civil works through repair, renovation and/or upgradation of health facility infrastructure at district hospitals, CHC and PHC level; (b) private sector partnerships, technology solutions, and improved working conditions of the health sector staffs to improve their efficiency and satisfaction level and provide better quality care. Project will also support community level intervention by improving the infrastructure and services at Health Wellness

Centre (HWC) at pilot level. The overall strengthening of the health sector delivery in Meghalaya will also include (a) strengthening the administrative structures including technical support and training of administrators at the state and district levels on planning, management and technical issues; (b) performance based contracting and result based financing at HCF level for quality improvement, emphasize on capacity building of hospital and facility staff on techno-managerial skills; and (c) support development of a plan for improving management and disposal of all biomedical waste generated by both government and private health facilities.

Since the project aims to strengthen a large number of HCFs, and given the current Covid19 pandemic situation, the specific location and detailed information about the subprojects are not available, and hence an Environmental and Social Management Framework (ESMF) has been prepared for managing the identified risks and impacts. An Environment and Social Commitment Plan (ESCP) and a Stakeholder Engagement Plan (SEP) have also been prepared and will be agreed and disclosed at the DOHFW website locally in Meghalaya and on the World Bank's external website. Given Covid19 pandemic related travel restrictions and social distancing advisories, limited field visit could be done and most of the consultations were virtual. Consultations covered aspects of Health service delivery and related biomedical waste management (BMWM) practices, and role of community in improving health services. The ESMF, SEP and ESCP may be updated as required during the implementation of the project when the wider stakeholder consultations are conducted.

Based on the identified potential environmental and social risks and impacts, the project's E&S risks are rated as 'Moderate'. The key social risks emerge from risks of exclusion and access to services by vulnerable populations; risk to occupation and health safety issues from repair and renovation activities – though small in nature but at dispersed locations; and weak or non-existent grievance redress mechanisms. The project does not anticipate any land acquisition and/or involuntary resettlement as the infrastructure improvement activities are limited to repair, renovations, and minor expansion within the existing footprint of the health facilities. To mitigate these risks, screening will be conducted for each of the subprojects to avoid and adverse social impacts including potential impacts on informal/ illegal settlers residing within the health facility premises/ land (if any). The key environmental risk emerges from the fact that with improved utilization of health services through the project, the quantity of bio-medical waste will increase incrementally. This in the backdrop of the present bio-medical waste management (BMWM) practices in the State poses further risks. However, the project plans to invest to improve the overall ecosystem for bio-medical waste management that includes segregation, disinfection, collection and disposable that largely safeguards the environment and contributes in improving the quality of health service and patient safety. A study on Waste Characterization shall be undertaken by DoHFW within first six months of project effectiveness for all health facilities across the state to address BMWM in a programmatic way. Given the incremental increase in BMW is dependent on increase patient footfall, which is further dependent of many factors including infrastructure upgradation of HCFs, capacity enhancement of HCF staffs, and SBCC to mobilise community, and hence not expected to happen during the first two years of the project. Along with HCF infrastructure upgradation, infrastructure for BMWM will also be assessed and will be part of the quality enhancement plan for upgradation. Similarly, the BMWM related capacity building will also be part of the overall capacity building plan. The overall upgradation of BMWM system is timely scheduled and in line with any expected increase of bio-medical waste. In the meantime, the existing BMWM practices with recommended onsite disposal methods using deep burial pits for infectious wastes, sharp pits for sharp wastes, and disinfection of liquid waste before being released in the drain/ soak-pits will be followed which are in line with national guidelines and regulations. It is envisaged that the mercury-based medical equipment will be gradually phased out using the State's procurement systems. In addition, the risk emerges from minor repair and retrofitting in health facilities and largely includes construction solid waste, dust, wastewater, noise, lubricants and oils, air emissions from diesel generators etc. There are in dispersed locations and will be managed locally using mitigation measures as provided in ESMF. It also has potential benefits due to

adoption of proposed renewable sources of energy at the target HCF such as solar lights etc. With this effect, a GHG baseline study is proposed to be undertaken within first 6 months of project effectiveness.

Six out of ten World Bank Environment and Social Standards (ESSs) are considered 'relevant' to the project. The relevant E&S standards are: ESS1 - Assessment and Management of Environmental and Social Risks and Impacts, ESS2 - Labor and Working Conditions, ESS3 - Resource Efficiency and Pollution Prevention and Management, ESS4 - Community Health and Safety, ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities and ESS10 - Stakeholder Engagement and Information Disclosure.

This ESMF is exhaustive and covers all the critical aspects for managing the potential environmental and social risks of the project. The ESMF includes an analysis of the national/subnational legal and regulatory framework, an environmental and social baseline, screening checklists for risk categorization of subprojects, negative list of investments, due diligence procedures and processes, mitigation actions with responsible agencies against each action and provides procedures relevant to the development of the subprojects, a generic Environmental and Social Management Plans (ESMP), and further guidance for developing the Bio-Medical Waste Management Plan (BMWMP) in accordance with the World Bank's Environmental and Social Framework (ESF). It includes a summarized SEP and details out the institutional arrangements required for E&S risk management, including the requirements for qualified experts and a capacity building plan. The EMSF includes a Grievance Redress Mechanism and refers to a range of COVID-19 related guidelines.

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) FOR MEGHALAYA HEALTH SYSTEMS STRENGTHENING PROJECT (P173589)

1 INTRODUCTION

1.1 Background

‘Meghalaya’ which means ‘abode of clouds’ is a hilly state located in the north-eastern part of India. It was created as an autonomous state within the state of Assam on 2nd April 1970 while the full-fledged State came into existence on 21st January 1972 with its own legislation. The state on the North and east is bound by Assam while on the south and west it shares its borders with Bangladesh. Meghalaya is spread over an area of 22,429 square kilometres and lies between 20.1° N and 26.5° N latitude and 85.49 °E and 92.52 °E longitude. Meghalaya being the Schedule VI state under the constitution, has many legal and constitutional provisions, and is divided into three divisions with Autonomous hill councils (ADCs), namely, Jaintia Hills (with two districts), Khasi Hills (with four districts) and Garo Hills (with five districts). The State has 11 districts, 6 municipal councils, 22 towns and 6459 villages.

As per 2011 census, Meghalaya recorded the population of 2.97 million with the highest population growth of 27.8 percent among all the states of the region and even higher than the national average at 17.64 percent. The state has average population density is 132 persons per square kilometres with a range of 56 to 299 persons per square kilometre between west Khasi and East Khasi Districts. As per 2011 census, Meghalaya recorded the highest population growth of 27.8 percent among all the states of the region, higher than the national average at 17.64 percent.

More than 86 per cent of the population belong to the scheduled tribe. One-fourth of the state population lives in rural areas with the overall literacy rate of 74 percent. More than 86 per cent of the population belongs to the scheduled Tribe (ST). Meghalaya's main ethnic communities, each having its distinctive customs and cultural traditions are the Khasis (of Mon-Khmer ancestry), the Garos (of Tibeto-Burman origin) and the Jaintias (from South East Asia). Though largely peaceful, ethnic conflicts between the indigenous tribes and others have been noticed at times.

Despite occupying 8 percent of India's land area & having 3.77 percent of its population the region accounts for a little 3 percent of India's GDP (~\$80 billion). Meghalaya is one of the fastest growing states in the country, yet economic opportunities continue to be limited especially for its rural inhabitants. The per capita net domestic product at constant prices (2011-12) is US\$867 (₹ 61,798) which is nearly 30 per cent lower than the national average of US\$ 1,230 (₹ 87,623). At the same time, only 16.1 per cent of the population live below the poverty line in comparison to 37.2 per cent at the national level. The Government of India (GoI) has emphasized the importance of the development of the north-eastern region including Meghalaya and granted it with a “Special category” status by providing priority for development investments.

1.2 Environmental Profile of Meghalaya

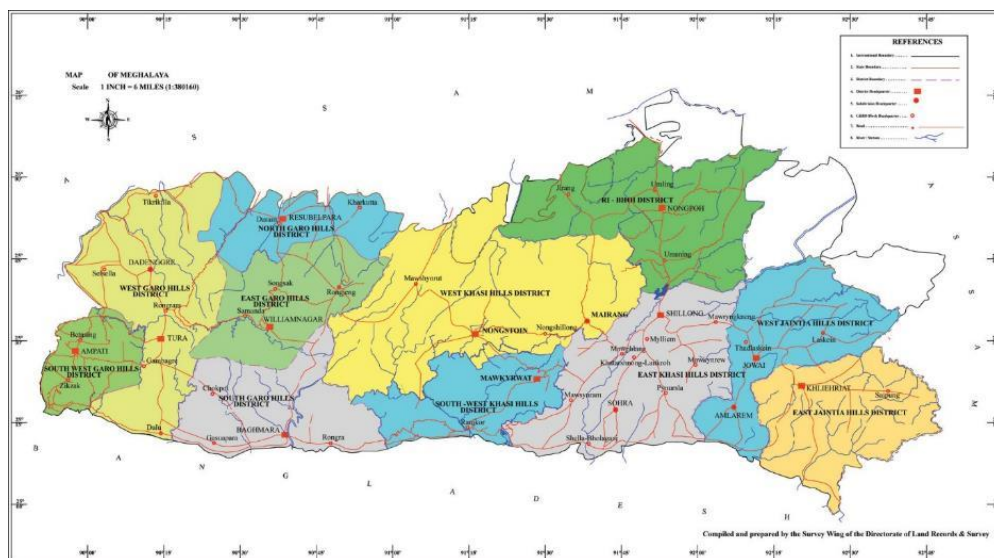
The state of Meghalaya is mountainous, with stretches of valley and highland plateaus, and it is geologically rich. It consists mainly of Archean rock formations. These rock formations contain rich deposits of valuable minerals like coal, limestone, uranium and sillimanite. Meghalaya state is also known as Meghalaya plateau. The state can, broadly, be divided into three physiographic zones, namely:

- i. Central Plateau Region comprising the Khasi Hills and has the highest elevations between 900-2000m;

- ii. Sub-montane region in continuation with the Central Plateau below 900m which gradually merges with the plains in the West and North, namely the Jaintia Hills; and
- iii. Border region which stretches south-wards abruptly from the Central Plateau to the plains in Bangladesh, mainly the Garo Hills region, and is nearly plain.

About 70% of the state is forested, ninety percent of which is under community or private management. There are two national parks and three wildlife sanctuaries, 22 community reserves, one biosphere reserve and two elephant reserves to protect and conserve biodiversity of the state. The State has most of its land covered by hills interspersed with gorges and small valleys. It has predominantly hilly terrain with foothills as plains and flood prone areas.

Figure 1: Map of Meghalaya



Meghalaya has a fragile eco-system. It has one of the wettest places in the world. Climate of Meghalaya plateau is influenced by elevation and distribution of physical relief. Based on the weather condition, the Meghalaya plateau has 4 distinct seasons; (a) The rainy season from May to early October, (b) The cool season from early October to November, (c) The cold season from December to February and (d) The warm season or hot season from March to April. The western part of the Garo hills is relatively lower in elevation as compared to Khasi and Jaintia hills. Garo hills experienced higher temperature conditions and humidity from February to October. April and May are the warmest months and January is the coldest month. The nature of elevation and slope has also influenced the distribution of rainfall.

The Khasi and Jaintia hills experience a moderate climate because of higher elevation. Warm and humid conditions are prevalent in the foothill's region in the south and sub-montane region in the north and central uplands. The southern parts of the plateau have the Cherrapunji -Mawsynram region which receives the heaviest rainfall, an annual average of 12,670 mm. The Khasi and Jaintia hills receive an average of 7,700 mm of rainfall and lies in the rain shadow area. Cherrapunji and Mawsynram lying about 55 Km south of Shillong receives an annual rainfall of about 14,000 mm which is the highest amount of rainfall in the world. These areas receive rainfall on an average for 160 days in a year, spread over six to eight months between March to October. Paradoxically, even then the state of Meghalaya is water stressed in some regions during summer months. This is mainly due to topographical and geomorphological conditions apart from alterations of the natural land surface by

way of development, mining and urbanization. Moreover, the characteristic hilly and steep sloping terrain condition in the area with localized small valleys results in very high surface run-off during the monsoon.

1.3 Socio-Cultural and Demographic Profile of Meghalaya

1.3.1 Demographic Profile

According to the 2011 census, the total population of Meghalaya is 2.97 million, constituting 0.25 percent of the total population of India. The State has a population density of 132 persons per sqkm and ranges from minimum of 73 person per sqkm in West Khasi Hill to maximum of 301 person per sqkm in East Khasi Hills district. Approximately 80 percent of the population is rural. The state and district-wise population break-up reflects that over 86 percent of the state's population constitutes of Scheduled Tribes. The overall Literacy rate in Meghalaya is 74.4 percent with Female literacy rate being 72.9 percent. The district wise demographic profile is presented in Table (1) below.

District	No. of Villages	No of Households	% ST	Population Density (Person/ Sqkm)	% Literacy	% Male Literacy	% Female Literacy
West Garo Hills	1577	123,352	73.7%	175	67.6%	72.4%	62.7%
South-West Garo Hills*							
East Garo Hills	1058	58,328	96.0%	122	73.9%	77.7%	70.1%
North Garo Hills*							
South Garo Hills	731	24,527	94.3%	75	71.7%	76.2%	66.9%
West Khasi Hills	1093	64,906	97.8%	73	77.9%	78.5%	77.2%
South-West Khasi Hills*							
Ribhoi	579	46,872	88.9%	106	75.7%	76.8%	74.5%
East Khasi Hills	923	164,046	80.1%	301	84.2%	84.5%	83.8%
East Jaintia Hills	498	66,028	95.2%	103	61.6%	58.1%	65.1%
West Jaintia Hills*							
State Total	6459	548,059	86.1%	132	74.4%	76.0%	72.9%

Source: Census 2011
Note: * Districts created post 2011 census.

1.3.2 Tribes of Meghalaya

Meghalaya is predominantly a tribal state with (~) 86 per cent of the total population being Scheduled Tribes. The tribes of Meghalaya can be classified into three major groups - Garos, Khasis and Jaintias (or Pnars). The other minor tribes include Rabha, Hajong, Koch and Bodo Kachari. The Khasi are the largest tribal group, followed by the Garo and the Jaintia. The most noteworthy feature of the tribes of Meghalaya is matrilineal lineage, whereby lineage is traced through the mother, and property and inheritance is given to the youngest daughter.

Khasi and Jaintia Tribes

The term "Khasi" generally is used to describe a group consisting of the Khyntiam, Pnar, Bhoi and War. The people who inhabit the Jaintia Hills are called the Synteng or the Pnar or simply Jaintia; the people who dwell in the upland of the central part of the state or the Khasi Hills are called the

Khynriam. On the other hand, the people who reside in the deep valleys and hill-sides of the southern part of the state are called War, while those occupying the low-lying hills on the north are called the Bhoi. Over the years the term “Khasi” has come to be synonymous with those occupying the Khasi Hills of Meghalaya. There are not many differences among the tribes and they observe the matrilineal system and are exogamous in their way of life.

The Khasi and the Jaintia are of common ethnic stock and social and cultural background. The society is matrilineal and lineage is through the mother. This is however, not to say that there is no role of the father in the family— he is the head of the family and a ‘kni’ or maternal uncle in his sister’s house. His earnings before marriage remain part of his mother’s or sister’s which he cannot take away to his wife’s house; while after marriage, his earnings become part of his wife’s household. Among the Jaintias, the practice differs to the extent that the son continues to remain a part of his mother’s or sister’s family (before or after marriage) and all earnings are towards them. If a wife were to retain the property of her husband, she must vow to never remarry or the property will revert back to her husband’s family. The matrilineal tradition which the Khasis follow is unique with principles emphasized in myths, legends, and origin narratives. Khasi kings embarking on wars left the responsibility of running the family to women and thus their role in society became very deep rooted and respected.

Garos

The Garos are a hill tribe currently inhabiting the Garo Hills district of Meghalaya. It is bounded on the north and west by the district of Goalpara in Assam; on the south by the district of Mymensingh in Bangladesh; and on the east by the Khasi Hills. Historically, they inhabited the outermost end of the mountain promontory which runs out into the rice lands of Bengal. The Garos may be roughly divided into the Plains Garo and the Hills Garo each inhabiting the district to which they owe their name to. The Plains Garos inhabit the plain areas like Mymensingh and it was believed that their ancestors crossed the Himalayas and settled in the plains at their foot; while the Hills Garos inhabit the hills of low elevation popularly known as the Tura range, rarely rising much above 2000 feet. The Garos, like the Khasis and Jaintias, also follow the matrilineal system. A man may marry as many women as he like, but usually it is limited to three; though for him to remarry, he must obtain the permission of his earlier wives. Originally, the Garos were divided into three katchis or exogamous septs or clans, namely, Momin, Marak, and Sangma. With time, there has been new addition to these clans and new clans like the Arengs, Ebang and Shira has been named as exogamous independent groups. Among the Garos, marriage within the same clan is taboo. The children belong to their mother’s clan “machong” or “motherhood”.

1.3.3 Religion

As per the 2011 Census, Christianity is the predominant religion in Meghalaya constituting 74.59 percent of the state’s population and the remaining population follows Hinduism (11.53%), Islam (4.40%) and other religions. Demographic characteristics of the districts further reveal that over 90 percent of the population of West Khasi Hills, East Garo Hills and South Garo Hills comprises of Christians. The East Khasi Hills (17.55 %) and West Garo Hills (19.11%) also have a sizeable population of Hindus, whereas, 16.60 percent of the population in West Garo Hills constitute of Muslims.

1.4 Health Status in Meghalaya

The state health index¹ score places the state in the third position among smaller states with a gap of 20 points from the leading smaller state. Meghalaya has dropped marginally on the overall health index from a score of 56.83 to 55.95 and falls in the “Not Improved” category of smaller states.

¹ Healthy States Progressive India - Report on the Ranks of States and Union Territories, June 2019, by Niti Ayog. Available at http://social.niti.gov.in/uploads/sample/health_index_report.pdf

Meghalaya has delivered a mixed performance with a drop in the Health outcomes by 3 points from 63.4 to 60.2 from FY 15-16 to FY 17-18 and a marginal improvement in the key inputs/ processes from 38.38 to 39.8 in the same period. Out of the relevant 22 indicators / sub-indicators, 50 percent lie in the “Most improved & “Improved” category while the balance have shown no change or have deteriorated.

The state has high mortality rates as the Infant mortality rate (IMR) is higher than the national average (39 vs 33 per 1,000 live births) and under-five mortality rate is at 40 (Urban-20, Rural-43). Further, the Total Fertility Rate (TFR) is at 3.0 which is higher than the national average of 2.2. On maternal mortality rate (MMR), the available literature reports 160 maternal deaths per 82,000 live births. According to the India State-level Disease Burden Initiative, the top two causes of deaths among the age groups 0-14 years (accounting for 15 percent of total deaths) includes diarrhoea, lower respiratory infections (38 percent), neonatal disorders (30 percent). In the age group 15-39 (15 percent of total deaths) includes diarrhoea, lower respiratory infections (13 percent) and HIV/AIDS and TB (12 percent). In the age groups 40-69 (37 percent of total deaths), cancer (25 percent) and cardiovascular diseases (20 percent). And in 70+ years (31 percent of total deaths) includes cardiovascular diseases (25 percent), diarrhoea and lower respiratory infections. Anaemia is also very high amongst women more so in the case of pregnant women where it has worsened from 46 to 56 percent between the last two rounds of NFHS.

In terms of service delivery, the state performs fairly on the indicators as full immunization rates (for children aged 12-23 months) have doubled from 33 percent in 2005-06 to 61 percent in 2015-16, though there remains a stark differential between urban (81) and rural (58) areas. Around 50 percent of pregnant women receives antenatal care (ANC) during the first trimester and only half of women received at least four ANC check-ups during their pregnancy. Despite percentage increase in institutional deliveries, from 29 percent in 2005-06 to 51.4 percent in 2015-16, Meghalaya is the second worst performing state in terms of institutional deliveries in the entire north eastern region as per NITI Aayog. Table (2) summarizes the health indicators for the state.

Table (2): Key Health Indicators					
District	% pregnant women registered for ANC in 1st trimester	% pregnant women who took IFA tablets for at-least 100 days	Four or More ANC visits	Institutional Delivery	% Children between 12-23 months Fully immunized
East Garo Hills	32.6	19.6	29.6	44.2	41.2
East Khasi Hills	72.5	56.4	72.8	66.7	68.7
Jaintia Hills	63.3	43.2	52.7	44.3	68.3
Ribhoi	43.9	33.5	40.6	44.9	55.7
South Garo Hills	56.6	48.8	51.7	88.4	83
West Garo Hills	47.4	13.8	37.2	45.5	47.9
West Khasi Hills	37.2	32.2	44.2	38.9	74.2
State Total	53.3	36.2	50	51.4	61.5

Source: NFHS-4 (2015-16)

As the state has hilly and difficult terrain, there remains the challenge of poor connectivity, transport facilities and communication and remote and far-flung villages are worst affected. Only a few health facilities have continuous water supply along with sanitation arrangements. In an energy surplus state, the electricity supply is unreliable, especially during the monsoons, in rural and remote areas. Further, Meghalaya contributes to a very small proportion of health workforce in the country. The state has

only one medical college and is yet to establish their own medical council. The state has a Nursing council established in 1994 but is only partially functional as they are yet to formulate their byelaws. Lack of opportunities for higher education or continued medical education has resulted in a significant shortage of specialists in the state. These issues are further accentuated by lack of health information systems leading to poor supervision and performance management systems. The state is committed to strengthen the other evolving health areas including quality assurance systems, Biomedical waste management systems, health insurance, emergency services and has begun efforts in this direction including exploring partnerships with the private sectors.

1.5 Health Care Facilities in Meghalaya

The levels of healthcare in Meghalaya in terms hierarchy of lowest to highest is (1) Sub- Centres, (2) Primary Health Centres, (3) Community Health Centres, and (4) District Hospitals. The district wise distribution of these HCFs is presented in the Table (3).

Sl.No.	District	Hospitals*	Dispensaries	CHC	PHC	SC
1	East Jaintia Hills	1	0	1	6	35
2	West Jaintia Hills	1	1	3	12	46
3	Ribhoi	1	2	3	8	34
4	East Khasi Hills	4	5	7	25	72
5	West Khasi Hills	2	0	2	15	46
6	South West Khasi Hills	0	0	2	4	19
7	North Garo Hills	0	0	1	11	49
8	East Garo Hills	1	1	1	7	31
9	West Garo Hills	2	3	5	9	65
10	South Garo Hills	1	1	1	6	26
11	South West Garo Hills	1	0	1	9	27
State Total		14	13	27	112	450

Source: Meghalaya State Statistical handbook, 2019.

* Note: Includes Sub-district or Sub-divisional hospitals (SDHs) and District Hospitals (DHs), and State Hospitals (SHs)

The overall health care delivery services are categorized as primary, secondary and tertiary care services and at state level being managed by different Directorates of the State Health Department. While the primary health care services by Sub-Centre (SC), and Primary Health Centre (PHC) are largely preventive and promotive, the Community Health Centre (CHC) works as the first referral unit for curative services. The District hospitals, sub-divisional hospitals form the core of the secondary services, which the Medical college hospitals and super specialty hospitals forms part of the tertiary health services. The table below further details out the key functions of district hospital, CHC, PHC and SC.

Type of Health Facility	Typology and Geographic Distribution	Human Resources	Numbers
-------------------------	--------------------------------------	-----------------	---------

Table (4): Health Facilities in Meghalaya

Type of Health Facility	Typology and Geographic Distribution	Human Resources	Numbers
<p>Three State hospitals (SHs) with bed strengths ranging from 100 plus to 500 are an independent entity and provide specific services like Ganesh Das Mother and Child Hospital in Shillong, Reid Provincial Chest Hospital in Shillong and TB Hospital at Tura. They report directly to the state directorate and are autonomous in function</p>			
<p>District Hospital (DH)</p>	<p>At least one in each district except in two districts i.e. South West Khasi Hills, and North Garo Hills.</p> <p>District Hospital serves as secondary referral unit and provides comprehensive secondary health care services to the people in the district.</p> <p>Based on population size district are graded and varies from 100 bedded to 500 bedded hospitals. Services include OPD, indoor and Emergency Services and will have OT and ICUs.</p> <p>Sub-district or Sub-divisional hospitals (SDHs) are below the district and above the block level (Community Health Centres) hospitals and also act as First Referral Units with bed strength ranging from 31 to 100.</p>	<p>DH is manned by 11-23 Medical Officers based on number of beds along with minimum of Medicine, Surgery, Obstetric & Gynae, Paediatrics, Anaesthesia, Ophthalmology, Orthopaedics, Radiology, Pathology, ENT, and Dental specialists along with Staff Nurses and other support staffs based on number of beds.</p>	<p>Every district has at least one District Hospital except in two districts i.e. South West Khasi Hills, and North Garo Hills.</p>
<p>Community Health Centres (CHCs) or Sub-Divisional Hospitals</p>	<p>CHCs are being established and maintained by the State government. It also works as a First Referral Unit (FRU).</p> <p>In Meghalaya, the</p>	<p>CHC is manned by four medical specialists i.e. surgeon, physician, gynecologist and pediatrician supported by 21 paramedical and other staffs.</p> <p>It is supposed to have 30 in-</p>	<p>There are 27 CHCs in the Meghalaya – atleast one in every district.</p>

Table (4): Health Facilities in Meghalaya			
Type of Health Facility	Typology and Geographic Distribution	Human Resources	Numbers
	standard norm for a CHC is at every 80,000 population as being in hilly areas.	door beds with one OT, X-ray, labour room and laboratory facilities. It serves as a referral center for 4 PHCs and also provides facilities for obstetric care and specialist consultations.	
Primary Health Centers (PHCs)	<p>PHC is the first contact point between village community and the medical officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care.</p> <p>In Meghalaya, the standard norm for a PHC is at every 20,000 population as being in hilly areas.</p>	<p>PHC is supposed to be manned by a medical officer supported by about 14 paramedical and other staff (1- Pharmacist, 3 Staff Nurse including from NRHM, 1 ANM, 1 Laboratory Technician, and other staffs).</p> <p>It acts as a referral unit for Sub Centres and may have 4-6 beds for patients. The activities of PHC involve curative, preventive, promotive and family welfare services.</p>	There are 112 PHCs in Meghalaya.
Sub – Centre (SC)	<p>The Sub Centre (SC) is the most peripheral and first contact point between the primary health care system and the community.</p> <p>In Meghalaya, the standard norm for a SC is at every 3,000 population as being in hilly areas.</p>	Each Sub-centre is manned by at least one auxiliary nurse midwife (ANM)/ female health worker and one male health worker.	There are 450 PHCs in Meghalaya.
Source: DoHFW, Meghalaya 2019			

1.6 Protected Ares and Historic Sites

The Archaeological Survey of India has identified monuments of national importance and are presented in table (5). There are also state protected monuments, archaeological sites that have been recognized by the ASI in Meghalaya, in the West Garo Hills, these include excavated temples, Buddhist Stupa and a Fortress.

Table (5): Protected Archaeological and Historic Sites

Name of the Monument/ Site	Location	District
Megalithic Bridge on the Um-Nyakaneth, between Jaraem and Syndai	Um-Nyakaneth	Jaintia Hills
Megalithic Bridge known as Thulum-wi between Jowai and Jarain, Maput	Maput	Jaintia Hills
Megalithic Bridge on the Um-Kumbeh	Um-Kumbeh	Jaintia Hills
Stone memorial of U.Mawthaw - dur-briew, Nartiang	Nartiang	Jaintia Hills
Tank, Syndai	Syndai	Jaintia Hills
Stone memorial of U-Mawthoh-dur, Bhoi Country	Bhoi Country	East Khasi Hills
Scott's Memorials, Cherrapunji	Cherrapunji	East Khasi Hills
Manipur Memorial, Shillong	Shillong	East Khasi Hills
Source: Archaeological Survey of India, http://asiguwahaticircle.gov.in/meghalaya.html		

2 PROJECT DESCRIPTION

The proposed project development objective (PDO) is to “**improve accountability, quality, and therefore utilization of health services in Meghalaya**”. More specifically, the project will improve the quality and responsiveness of health services among public facilities at primary health center (PHC), community health center (CHC) and district hospital levels. This shall be done by creating an ecosystem of increased accountability through intra-governmental Internal Performance Agreements (IPA). IPAs shall be designed both as a management and financing tool for enabling a culture of accountability, which will over time improve utilization of health services. The progress towards achievement of the PDO will be measured through the following:

- a. Increase in percentage of health facilities and administrative units that achieve physical and financial performance thresholds as set forth in the IPA (accountability)
- b. Increase in number of government health facilities with quality certification (quality)
- c. Increase in number of patients utilizing government health services at out-patient department (OPD) in targeted facilities. (number), disaggregated by gender (utilization)
- d. Increase in percentage coverage of households under health insurance scheme. (utilization)

The proposed project will benefit the entire state of Meghalaya as it aims to strengthen the state public health system. The primary focus will be on strengthening the 12 district hospitals, 23 CHCs and 70 PHCs across the state. Systems will also be strengthened in the MHIS which is currently used by 56 percent families in the State.

The project will also benefit the health sector staff, specifically at the secondary and primary levels, by strengthening their capacity and provide them skill-based training. The investment at the health facility level to improve infrastructure, private sector partnerships, technology solutions, and improved working conditions will improve their efficiency and satisfaction level and provide better quality care.

The community level intervention that follows the integrated approach for child development also provide focused health and nutrition service for mothers. This will benefit the women and child through focused intervention

2.1 Purpose of the ESMF

The main purpose of this ESMF is to ensure that the implementation of the project is carried out in an environmentally and socially sustainable manner. The ESMF seeks to:

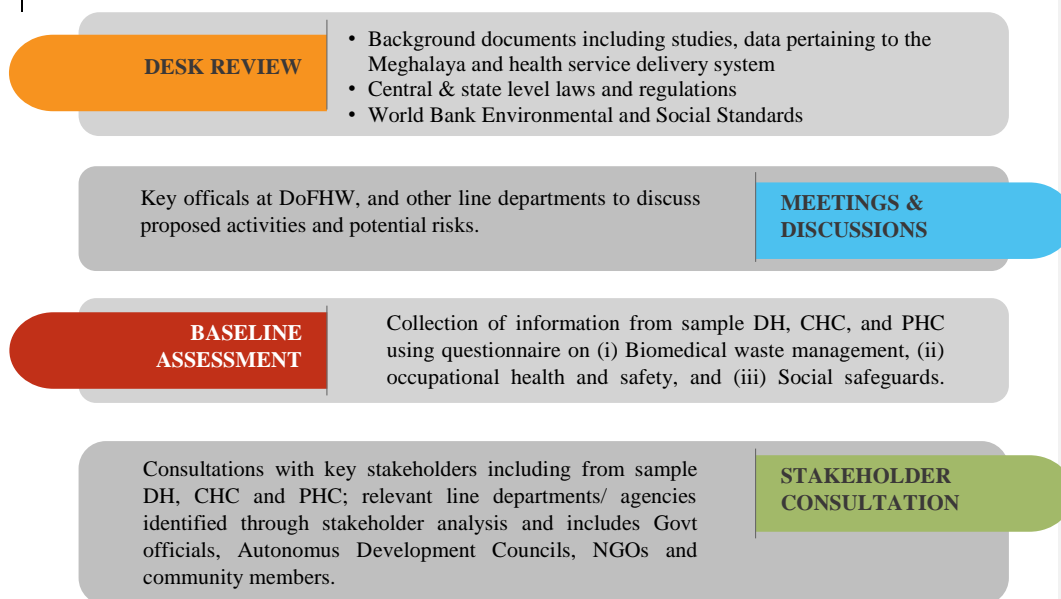
- Establish clear procedures and methodologies for environmental and social planning, review, approval and implementation of subprojects to be financed under the Project.
- Provide practical guidance for planning, designing and implementing the environmental and Social management measures.
- Specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and related social concerns of the sub-projects.
- Determine the institutional arrangements, including those related to training, capacity building and technical assistance (if required) needed to successfully implement the provisions of the ESMF.

The ESMF also supports the compliance with applicable government laws and regulations as well as the requirements of relevant Bank standards on environment and social aspects.

2.2 Approach and Methodology

This ESMF has been prepared in accordance with all relevant World Bank Environmental and Social Standards (ESSs), Policies, Guidance Notes, IFC ESG (Environmental, Health, and Safety Guidelines) sector guidelines, and the Government of India, Meghalaya State and Local Government relevant regulations, acts, laws, standards and guidelines. A participatory and consultative approach has been adopted to prepare the ESMF. The methodology involved desk review of secondary information, along with discussion and consultation with various stakeholders in a virtual manner, and collection baseline information from sample health facilities. Given the COVID19 situation and travel restrictions and advisories on social distancing etc., primary field assessment at HCF level were largely relied upon sharing and collecting information checklist with sample HCFs and further consultations with a sub-set of them. The figure below presents the approach.

Figure 12: Methodology for the Development of ESMF



2.3 Project Components

Component 1. Improving accountability and strengthening governance of health services through Internal performance agreements transforming the ecosystem of health service delivery:

This component will focus on reforms in governance, management and accountability using IPA tool. Performance-based contracts and RBF are proven to have a positive impact on service delivery,² and it has the potential to catalyse comprehensive reforms in addressing structural problems of health service delivery.³ Learnings from other countries indicate performance-based financing could positively impact quality.⁴ Therefore, institutions and health facilities will be financed for results measured against agreed indicators. These will constitute IPAs between the DoHFW and implementing institutions that will foster a spirit of more accountable government, and result based monitoring, leading to improvements in service delivery, quality and utilization. The arrangement shall be modelled around the principal-agent as there exists a complete convergence of objectives between participating entities.⁵ The strategic approach for achieving this outlined below:

- a. **IPAs will be signed at three levels of the state public health system.** Entities with which the DoHFW shall sign such agreements are the Directorate and its subsidiary departments including the Megha Health Insurance Society; District level health administration office and District hospitals; and health facilities, which includes a referral hospital (CHC) and primary health centers.
- b. **The Directorates will be supported in identifying existing sector-wide gaps in quality and utilization of health services, determining the most suitable approaches to address these gaps, developing action plans, and help operationalizing those plans.** Funding will be provided to the directorates, eligible subsidiary divisions and MHIS who will meet pre-conditions reflecting a minimum level of capacity and interest, including signing of IPA and development of action plans with agreed targets. Similarly, the district level health office will be supported in prioritizing areas of support for improved results and strengthen their planning, monitoring and coordination functions. The achievement of output results and improved practices will provide the necessary incentives for the district teams to strengthen their infrastructure and meet other needs as per the action plans.
- c. **The performance at all these levels will be measured against their results defined via key indicators that contribute to quality of health services.** Key indicators are related to improved policy for human resources, improved population coverage under MHIS for increased financial protection and improved processes under the state insurance scheme, state level reforms for supply chain management, improved regulation for bio medical waste, reduction in drug stockout (at State level); improved monitoring of health facility, coordination for optimal utilization of resources including utilization of insurance claim receipts, timely supply of resources (at district level); and improved health facility quality score. This quality score will be an index which measures content of care quality through repetitive knowledge tests, and key structural indicators related to infection prevention and control and medical waste management, in addition to key metrics related to the accreditation planning process.

² Cheche, S.G. and S. Muathe, *A critical review of literature on performance contracting*. Global Journal of Commerce & Management Perspective, 2014. 3(6): p. 65-70,

³ Meessen B, Soucat A, Sekabaraga C. Performance-based financing: just a donor fad or a catalyst towards comprehensive health-care reform? *Bulletin of the World Health Organization* 2011; 89: 153-6.

⁴ Zang, O., Djienuouassi, S., Sorgho, G., & Taptueii, J. C. (2015). Impact of performance-based financing on health-care quality and utilization in urban areas of Cameroon. *African Health Monitor*, 7(21), 22.

⁵ Savedoff WD, Partner S. Basic economics of results-based financing in health. *Bath, Maine: Social Insight* 2010.

d. **The achievement of performance indicators will be monitored and confirmed in two ways.**

(1) an internal verification mechanism that uses an existing pool of human resources identified under national program to assess various quality assurance activities. The project will introduce internal performance contracts whereby public health administrative institutions are held responsible for verifying performance indicators as per the standard protocol defined by the project. The individuals used in these internal assessments would have the necessary certification. (2) an external verification method to help strengthen the overall monitoring process. A pool of contracted consultants will independently assess sample reported results as well as the use of financial incentives by different levels. Indicators and targets will be revised based on implementation experience. The health facilities will be empowered to use these incentives for activities that contributes in improvement of health facility, that include: improving health facility infrastructure; incentivizing health staff; contracting additional staff; filling gaps in supplies and equipment; and encouraging behavior change in areas of health, nutrition, and hygiene. These activities will be consistent with existing policies and systems of Government of India. A dashboard will be created to facilitate benchmarking of results and performance management. For MHIS, the scheme transaction portal provides real-time data that can be used for monitoring progress against agreed indicators, with a mechanism of independent sample verification.

Component 2: Strengthening Systems to Sustain Quality of health service: This component will focus on quality certification of identified facilities and strengthening the capacity of different aspect of health systems that are prerequisites for delivering quality services.

1. **Improvements in the delivery and quality of health services at district hospital, CHC and**

PHC: A systematic review of the impact of literature on accreditation of services reveal that it has a positive impact on improving processes of care and also clinical outcomes.⁶ It also contributes to increase in patient satisfaction.⁷ Based on this understanding, the project will invest in improving service delivery through comprehensive quality assurance programs leading to quality certification of health facilities; investments in health service infrastructure to improve functionality, including water supply, sanitation and electrical power; strengthening technical infrastructure like neonatal and pediatric intensive care units, engagement with private sector wherever required, strengthening forward and backward referral linkages and for improving knowledge exchange programs. As part of continuous capacity building state will retrain a pool of trainers to undertake facility-wise trainings and mentoring along with hands-on approach for implementing NQAS. The project will design interventions focused on making health facilities environmentally friendly and energy efficient. This includes designing the use of solar power, conserving water resources through rainwater harvesting and landscaping to make the spaces more pleasant and environmentally friendly. To enable this the project will support:

- a. Strengthening planning and management capacity for continuous quality improvement at identified health facilities. At district hospitals, specific interventions will include annual locally-owned quality improvement plans focusing on patient and provider safety and quality of care, and improved data collection systems using ICT solutions for monitoring. The process will involve Rogi Kalyan Samiti⁸ and hospital staff. Hospitals will be incentivized using RBF approach referred to in Component 1.

⁶ Alkhenizan, A., & Shaw, C. (2011). Impact of accreditation on the quality of healthcare services: a systematic review of the literature. *Annals of Saudi medicine*, 31(4), 407-416.

⁷ Fatima, T., Malik, S. A., & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty. *International Journal of Quality & Reliability Management*.

⁸ [Rogi Kalyan Samiti consist of following members: people representatives \(MLA/MP\); health officials; local district officials; leading members of community; local CHC/ FRU in-charge; representatives of Indian Medical Association; members of local bodies; and leading donors.](#)

- b. This will entail need-based re-designing hospitals, fund equipment, additional human resources, technical assistance and outsourcing of non-clinical and clinical support services, using performance-based contracts, in all district hospitals and targeted health facilities.
 - c. Health facilities at CHC and PHC levels will follow a similar format with low intensity but continued focus on improving the quality of health service delivery.
2. **In addition, the project will emphasize capacity building of hospital and health facility staff, focusing on techno-managerial skills and aligning incentives to perform better, through the medium of innovative in-service trainings and by piloting performance-based incentives and rewards.** The project will implement ‘Low Dose High Frequency (LDHF) Training’ approaches. These approaches will implement specific ‘vignettes’ or knowledge tests to promote evidence based medical practice targeting key conditions related to the burden of disease in Meghalaya. These key conditions are next to key Maternal and Child Health conditions, non-communicable diseases such as cancer, hypertension and diabetes. The individual performance agreement between the district authorities and key health staff at health facility level, to maintain minimum competency in clinical services, will drive the motivation levels of individuals to update their skills. The individual health worker will receive personalized feedback on her progress on the set of defined vignettes, whereas the (anonymized) average performance on these knowledge tests will largely drive the institution’s quality index. Tests will be administered online and will also be available through smart phones. The serially administered nature of the vignettes combined with a positive incentive environment both for the institution and the individual are expected to raise content of care quality swiftly.⁹
3. **Return of investments in quality and capacity is unlikely to sustain if Human Resource for health (HRH) are not managed optimally. Therefore, specific interventions in this regard are planned under this component.** The project will address constraints to improved availability, motivation, and performance of health human resources under three main groupings namely HR Planning & Management, capacity building and pre-service education. The capacity of the Department of Health for planning and management of human resources, with support of a HRMIS, a detailed enumeration of the HR across cadres will be undertaken to map current supply and demand and develop a HRH policy with a clear forecasting plan. Capacity building will aim at developing long-term strategies for health cadres, including low dose high frequency trainings and invest in the existing training institutions and state agencies (such as the State Institute of Health and Family Welfare) to deliver continuous medical education. The shortages in human resources for health, especially in PHCs and CHCs will be addressed by contracting in specialist and outsourcing of PHCs and CHCs following PPP contracts. The task-shifting involving in-service physicians and nurses to improve skill-mix and distribution of available health care providers will be piloted in selected districts. The component will also strengthen the pre-service education provided by government nursing schools, including investment in infrastructure improvement, capacity-building of Nurse tutors and help upgrading from GNM schools to B.Sc. colleges. Strategic investments in human resources are proven to have increased organizations capacity for resilience¹⁰ and also enable delivery of efficient and effective medical services.¹¹

⁹ Fritsche, G. and J. Peabody (2018). "Methods to Improve Quality Performance at Scale in Lower -, and Middle-Income Countries." *Journal of Global Health* 8(2). Peabody, J., et al. (2011). "Financial Incentives and Measurement Physicians Improved Quality of Care in the Philippines." *Health Affairs* 30(4): 773-781. Peabody, J., et al. (2013). "The Importance of performance incentives on child health outcomes: results from a cluster-randomized controlled trial in the Philippines." *Health Policy and Planning*. Peabody, J. W., et al. (2017). "Large-Scale Evaluation of Quality of Care in 6 Countries of Eastern Europe and Central Asia Using Clinical Performance and Value Vignettes." *Global Health: Science and Practice* 5: 173.

¹⁰ Lengnick-Hall CA, Beck TE, Lengnick-Hall ML. Developing a capacity for organizational resilience through strategic human resource management. *Human resource management review* 2011; 21(3): 243-55.

4. **Quality cannot be ensured without continuous availability of medicines and consumables. Therefore, the project will support strengthening of procurement and supply chain management:** The Department of Health's procurement and supply chain management systems (PSM) will be strengthened to improve the supply of medicines and consumables. The project will support capacity-building of state and sub-state level structures involved in PSM, like the state Procurement Board, including organizational strengthening, business process reengineering, need-based retrofitting and renovations of warehouses to improve storage capacity and monitoring capacity and PSM information system. Improving access to medicines is important as it contributes to 61% of the total OOPE for health in rural Meghalaya and 56% in urban areas.¹²
5. **Infection prevention and control is essential for quality. Strengthening of biomedical waste management:** The project will support development of a plan for improving management and disposal of all biomedical waste generated by both government and private health facilities, in collaboration with the State Pollution Control Board and municipalities. The project will then finance implementation of the plan, including investments in necessary infrastructure, equipment and training, private sector engagement, IEC, infection prevention measures and immunization for health care providers.
6. **Improvement of planning, management, and monitoring functioning:** The project will strengthen the administrative structures responsible for health system management, including management of the World Bank project. This will include technical support and training for administrators at the state and district levels on planning, management and technical issues, with support by an externally contracted Project Management Agency, including knowledge exchange with other states in the region as well as India on technical and system development innovations and reforms. The integration of existing information systems and, need-based development of applications to improve oversight and management of the health system. The project will support development of a command and control system to integrate existing information systems and applications, including the health management information system, epidemiological surveillance, electronic health records, the human resources management information system (HRMIS), the Megha Health Insurance Scheme information system, the grievance redressal system, and others.
7. **A Project Management Unit (PMU) embedded in the Department will be responsible for technical, fiduciary and safeguards management, as well as monitoring and evaluation.** Through this component, the project would finance (i) establishment of project management unit (PMU) within Directorate of health Services and associated technical staff and support consultants (ii) the incremental cost associated with use of existing government agencies (iii) Establishment of expert groups (consulting services) to provide technical support to PMU (iv) Provision of training to PMU staff, government staff and technical experts (v) technical fiduciary and safeguards oversight and supervision of project activities in the field; and (vi) monitoring and evaluation of the project at all level.
8. **Through** component 2, the project would finance (a) Hiring of external consultancy support; (b) Minor civil works for retrofitting; (c) Purchase of goods and equipment (d) Trainings of human resource (e) Purchase of services; (f) Hiring of additional Human resource (Hospital Managers & other technical staff); and (g) Hiring of Non-consultancy services for clinical and Non-Clinical work.

Component 3: Increasing coverage and utilization of quality health services

¹¹ Elarabi, H. M., & Johari, F. (2014). The impact of human resources management on healthcare quality. *Asian journal of management sciences & education*, 3(1), 13-22.

¹² National Statistical Office, Government of India (2019) Key Indicators for Social Consumption in India: Health: July 2017 – June 2018.

1. **Improving coverage and strengthening institutional capacity of the Megha Health Insurance Scheme:** Instance of OOPE for hospitalization in Meghalaya is high as already presented in the section on *Sectoral Context*. Evidence from Mexico shows that the health insurance program for the poor resulted in a 54% reduction in catastrophic health expenditures.¹³ It is therefore imperative that the state insurance scheme be strengthened to. The scheme will be strengthened to improve population coverage, increase utilization, reduce spatial disparities in seeking benefits, and strengthen the institutional capacity of the Insurance Society. More specifically, the project will finance strengthening the scheme design through activities like comprehensive evaluation of process and service utilization, and review of benefit packages and pricing. It will finance interventions for increasing population coverage and demand for services through activities like community level interventions, data collection and consultations for reaching the unreached families for enrolment; developing comprehensive communication strategy and implementation; and incentives for frontline workers for identifying unidentified households. Organizational infrastructure, systems and capacity will be strengthened through activities like strengthening the IT infrastructure and MIS for the scheme, improving operational guidelines, SOPs (e.g., empanelment M&E, anti-fraud management, , financial management and fund utilization), capacity building of hospital, district and state level staff on SOPs and protocols, staff exposure visits, upgrading the office infrastructure of the MHIS, and expanding the tollfree helpline for the scheme.
2. **Pilot innovations in Wellness Centers:** The project will support the state in implementing the Ayushman Bharat strategy for strengthening Health and Wellness Centres, with capacity to provide an expanded package of services, including for primary screening, counselling and referral for NCDs. The project will help fill gaps in human resources, infrastructure, and equipment necessary for upgrading targeted facilities, and support innovative approaches to develop and operate selected Health and Wellness Centers. The project will pilot innovative strategies for the select sub centers- health wellness centers in augmenting their service delivery through tele-medicine, improving the service delivery through patient flow management run by the government ANM and Improvement in service delivery through PPP- NGO mode.
3. **Pilot Community level intervention for health and nutrition services:** The project will pilot community led intervention to demonstrate the integrated and multisectoral approach for women and child development. The pilot will be implemented in the coverage areas of HWC, the investments will be coordinated to maximize the impact and provide the roadmap for scaling up of interventions using government funds and integrate the elements in the ongoing community interventions supported by NHM.

Component 4: Contingent Emergency Response Component: Provision of immediate response to an Eligible Crisis or Emergency, as needed.

¹³ Galárraga, O., Sosa-Rubí, S. G., Salinas-Rodríguez, A., & Sesma-Vázquez, S. (2010). Health insurance for the poor: impact on catastrophic and out-of-pocket health expenditures in Mexico. *The European Journal of Health Economics*, 11(5), 437-447.

3 LEGAL AND REGULATORY FRAMEWORK

This Chapter outlines and provides a review of existing policies, legislations and regulations. It identifies the requirements that guide the implementation of the ESMF. There are several relevant Indian Acts and Regulations that are relevant to this project. Also, as this Project is being financed by the World Bank, its guidelines are paramount and are discussed. There must be harmony between both sets of frameworks, but should there be any discrepancies between these, the guidelines of the World Bank shall supersede those of the country.

3.1 Indian National Regulations and Standards

Table 5 presents the various regulations, acts and policies of the Government of India (GOI) and GoM, their purpose and the applicability.

Table (5): Environmental, Health, Safety and Social Regulations applicable to the Project

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
1	The Constitution of India (especially, Articles 15, 16 and 46)	Govt. of Meghalaya	The Indian Constitution (Article 15) prohibits any discrimination based on religion, race, caste, sex, and place of birth. Article 16 refers to the equality of opportunity in matters of public employment. Article 46 directs the state to promote with special care the educational and economic interests of the weaker sections of the people, particularly of the Scheduled Castes and the Scheduled Tribes and also directs the state to protect them from social injustice and all forms of exploitation.	Relevant to the overall Project
2	Biomedical Waste Biomedical Waste (Management and Handling) Rules 2016, and Amendment 2018	Meghalaya State Pollution Control Board/ DoHFW	Schedule 1: Categorization and Management Schedule 2: Standards for treatment and disposal of BMW	As per Accreditation requirements, healthcare facilities are required to develop Standard Operating Procedures (SOPs) in the handling of medical solid, liquid and

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
			<p>Schedule 3: Prescribed Authority and duties</p> <p>Schedule 4: Label of containers, bags and transportation of Bio-Medical waste</p> <p>The provisions under the rules provide for both solid and liquid medical wastes.</p> <p>Liquid waste should be treated with 1% hypochlorite solution before discharge into sewers.</p> <p>Hospitals not connected to municipal CTFs should install compact on-site sewage treatments (i.e. primary and secondary treatment, disinfection) to ensure that wastewater discharges meet applicable thresholds.</p>	<p>radioactive wastes.</p> <p>SOPs for BMWM activities especially handling, storage, transportation and treatment of BMW., so as to comply with the requirements of the rules.</p> <p>Meghalaya at present do not have a common treatment facility for collection, treatment and disposal of BMW from different facilities mainly up to CHC level.</p> <p>PHC and SC requires strengthening to meet the necessary requirements as per the legislation in terms of segregation, storage, transportation, treatment and handling of hazardous waste.</p> <p>There is a need for continuous training of the staff at the health facilities regarding the BMWM.</p>
3	E-Waste (Management and Handling) Rules 2011 as Amendment up to 2018	Meghalaya State Pollution Control Board/ DoHFW	There are policies governing the responsible disposal of e-waste generated by bulk consumers to address leakage of e-waste to informal sector at all the stages of channelization. The 2016 Amendment brought health care facilities (with turnover over INR 20 crore or more than 20 employees).	<p>It is applicable for the HCFs especially PHC and upwards. Given the range of electronic equipment at the HCFs and their consumables, it becomes important to adhere to the said rules.</p> <p>Training regarding the disposal of e-waste is critical and procedures for collection and reported annually.</p>

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
3	Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules 2008 Hazardous and Other Wastes (Management and Trans boundary Movement) Amendment Rules, 2016.	Meghalaya State Pollution Control Board/ DoHFW	These Rules outline the responsibilities of the generator, transporter and recycler/re-processor of the hazardous wastes for handling and management in a manner that is safe and environmentally sound. To address the appropriate management of all x-ray wastes developer so that they are safely handled and disposed.	The operation phase of the project will result in generation of some quantities of hazardous waste, mostly in the form of waste/used oil from Water Treatment Plant operation. Project developer needs to obtain consent from Meghalaya SPCB for storage of transformer oil, if required. All the hazardous waste generated due to the project should be stored and disposed as per the requirements of rules. Storage on a paved surface in a designated area with adequate secondary containment, with adequate labelling and before it is disposed to an SPCB approved vendor.
4	Batteries (Management and Handling) Rules, 2001	Meghalaya State Pollution Control Board/ DoHFW	These rules govern the used lead-acid batteries wastes to address their safe dismantling and disposal of components in environmentally safe manner.	The rules are applicable to manage the batteries generated due to transportation and power generation through generators etc in the health facilities leading to lead-acid batteries waste.
5	Municipal Solid Waste (Management and Handling) Rules, 2000	Meghalaya State Pollution Control Board/ Municipal bodies / DoHFW	These rules govern the safe collection, transportation, treatment and disposal of solid general wastes generated from the facilities,	Relevant, as majority of wastes generated from facilities consists of non-hazardous general solid waste. Its safe handling is essential so as to prevent its mixing with hazardous biomedical wastes.
6	Hazardous Waste	Meghalaya State	These Rules outline the responsibilities of the	The operation phase of the project will result

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
	(Management, Handling and Trans-boundary Movement) Rules 2008 Hazardous and Other Wastes (Management and Trans boundary Movement) Amendment Rules, 2016.	Pollution Control Board/ DoHFW	generator, transporter and recycler/re-processor of the hazardous wastes for handling and management in a manner that is safe and environmentally sound. To address the appropriate management of all x-ray wastes developer so that they are safely handled and disposed.	in generation of some quantities of hazardous waste, mostly in the form of waste/used oil from Water Treatment Plant operation. Project developer needs to obtain consent from Meghalaya SPCB for storage of transformer oil, if required. All the hazardous waste generated due to the project should be stored and disposed as per the requirements of rules. Storage on a paved surface in a designated area with adequate secondary containment, with adequate labelling and before it is disposed to an SPCB approved vendor.
7	Plastic Waste Management Rules 2016	Meghalaya State Pollution Control Board/ DoHFW	All institutional generators of plastic waste shall segregate and store the waste generated by them in accordance with the Solid Waste Management Rules, and handover segregated wastes to authorized waste processing or disposal facilities or deposition centres, either on its own or through the authorized waste collection agency.	HCFs are generators of large quantity of plastics, including non-reusable types. The plastic wastes contaminated with blood, urine etc poses high risks of infections and therefore, needs safeguard measures as specified in the rules.
8	The Epidemic Diseases Act 1897 The Epidemic Diseases (Amendment) Ordinance, 2020	DoHFW	The Epidemic Diseases Act 1897 provides for better prevention of the spread of dangerous diseases. The Epidemic Diseases (Amendment) Ordinance, 2020 was promulgated on April 22, 2020. The Ordinance amends the	To ensure safety of communities, workers and project staff especially during this period of COVID pandemic. The ordinance includes provisions for protection of health and safety of health workers from the acts of violence and

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
			<p>Epidemic Diseases Act, 1897. The Act provides for the prevention of the spread of dangerous epidemic diseases.</p> <p>The Ordinance amends the Act to include protections for healthcare personnel combating epidemic diseases and expands the powers of the central government to prevent the spread of such diseases.</p>	aggression during management of Covid-19 response in the health facilities and communities. .
9	<p>The Water (Prevention & Control of Pollution) Act 1974.</p> <p>The Air (Prevention & Control of Pollution) Act 1981.</p> <p>Environment Protection Act (and Rules), 1986 and 1996</p> <p>Environment (Protection) Second Amendment Rules 2002</p>	Meghalaya State Pollution Control Board/ DoHFW	<p>Provisions are largely to prevent air and water pollution by not releasing untreated effluents and harmful emissions from Generator sets and incinerators. Most provisions are already discussed under the Bio-Medical Waste Rules.</p> <p>The Act mandates to control and abate water pollution.</p> <p>The Diesel Generator sets installed during construction should comply with maximum permissible noise levels and noise control measures for diesel generators up to 1000 KVA capacity as specified in the Act.</p>	<p>Applicable</p> <p>Relevant to all HCFs and Central Biomedical Waste Treatment Facilities (where established).</p> <p>Relevant, based on the project scale of minor civil works and BMWM activities.</p>
10	Environmental Impact Assessment (EIA) Notification 2006 & and subsequent amendments, including Draft	Department of Environment and Forests, Meghalaya	Based on The EIA Notification 2006 and its subsequent amendments, Water supply project is exempt from obtaining prior Environmental Clearance from the regulatory authorities.	The project does not need prior Environmental Clearance.

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
	Notification March 2020			
11	<p>CPCB Guidelines for CBWTFs (2003).</p> <p>CPCB Guidelines for BMW Incinerators (2003). Draft Guidelines for Biomedical Waste Incinerator, 2017</p> <p>Guidelines for Management of Healthcare Waste in Health Care Facilities as per Bio Medical Waste Management Rules, 2016 Guidelines for Bar Code System for Effective Management of BioMedical Waste Standards for treatment and disposal of Bio medical waste by Incineration Environmentally Sound Management of Mercury Waste Generated from Health Care Facilities.</p>	Meghalaya State Pollution Control Board/ DoHFW	<p>Any activities from BMW temporary storage, transportation, disposal/treatment requires valid license.</p> <p>CPCB has also notified Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities which covers the location setting of the incinerator, operational and maintenance performance standards and monitoring.</p> <p>The State Pollution Control Board plays an important role in granting consent to establish and operate license to the CTF operators, which are largely private sector players.</p> <p>The guidelines on Mercury wastes in health facilities covers hazards of Mercury exposure, types of medical equipment and compounds containing Mercury and their handling, storage and disposal practices,</p>	<p>Relevant but may not be fully applicable.</p> <p>BMW is listed as hazardous waste due to its infectious characteristics. But the state is not fully covered through CBMWTF and these guidelines regulate the functioning of CBMWTFs so may not be fully applicable.</p> <p>Mercury has for long been used in health care is associated with long term human health and adverse environmental impacts. Safe handling of Mercury spills, storage of mercury wastes in the facilities and its disposal options to be assessed for occupational health and safety of health workers and to safeguard long-term community health impacts.</p>
12	Meghalaya Air (Prevention and Control of Pollution)	Meghalaya State Pollution Control	The Rules state for the need to seek consent from the board on any activity on air pollution	Relevant.

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
	Rules, 1988	Board/ DoHFW	control area.	MoU, TORs of vendors to include this aspect.
13	Noise (Regulation and Control) Rules 2000 amended in 2010	Meghalaya State Pollution Control Board/ DoHFW	The Rules stipulate ambient noise limits during daytime and night time for industrial, commercial, residential and ecologically sensitive areas. The rules apply both during the construction and operation of the project. Violation of the standards for assessing the noise quality due to the project will lead to penalty as under the EP Act 1986.	Relevant as since minor to moderate noise emission is expected from the retrofitting activities that are planned under the project.
14	National Disaster Management Act 2005	National Disaster Management Authority/ State Disaster Management Agency	Provides for the timely and effective response to disaster. It lays down guidelines to be followed by the State Authorities in drawing up the State Plans.	Applicable when project implementation is during or encounters natural disaster or is relevant under current circumstances of COVID pandemic.
15	The Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act 1996 and the associated Central Rules, 1998	Department of Labour and Employment, GoM/ DoHFW	This Act provides for safety, health and welfare measures of buildings and construction workers in every establishment which employs or employed during the preceding year ten or more such workers. These measures include fixing hours for normal working day, weekly paid rest day, wages for overtime, provision of basic welfare amenities like drinking water, latrines, urinals, crèches, first aid, canteens and temporary	Ensure through Contractors that basic amenities are provided to the project labourers; all Vendors employed should have valid labour license: compensation of workers should not be lower than the daily wage rate as prescribed by Government.

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
			living quarters within or near the work site. This Act also requires application of the following: Building or other construction workers' (regulation and Employment Conditions of Service) Central Rules 1998 & Workman's compensation Act, 1923 to buildings and other construction workers. These will be followed by contractor & developer during construction and operation phase.	
16	Workmen's Compensation Act, 1923 & Rules 1924	Department of Labour and Employment, GoM/ DoHFW	The Act provides for compensation in case of injury by accident arising out of and during employment.	As some of the activities require repair and renovation of existing infrastructure of HCFs and hence will involve construction activities.
17	Minimum Wages Act, 1948	Department of Labour and Employment, GoM/ DoHFW	This Act provide for fixing minimum rates of wages in certain employments and requires the employer to provide to every worker engaged in a scheduled employment to be paid wages at a rate not less than the minimum rate of wages fixed by such notification for that class of employees in that employment without any deductions except as may be authorized within such time and subject to such conditions as may be prescribed.	The Minimum Wages Act is applicable, and the contractor is mandated to provide compliance as per the act.
18	Payment of Wages Act 1936; and Equal Remuneration Act	Department of Labour and	The payment of wages act lays down as to by what date the wages are to be paid, when it	These Acts are applicable, and the contractor will be mandated to provide compliance as

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
	1976:	Employment, GoM/ DoHFW	will be paid and what deductions can be made from the wages of the workers.	per agreed terms of payment of Wages.
19	The Child Labour (Prohibition and Regulation) Act, 1986	Department of Labour and Employment, GoM/ DoHFW	The Act prohibits employment of children in certain occupation and processes. The Act also specifies conditions of work for children, if permitted to work.	No child labour will be engaged at site for construction or operation works either directly or by the sub-contractors. Health Department should include a clause in the subcontractor agreements prohibiting employment of child labour.
20	Sixth Schedule Areas in the Constitution of India	DOHFW	The scheduled areas under the Constitution has special provisions for the administration of the tribal dominated areas and autonomous regions with certain legislative and judicial powers. In the Scheduled Areas, involvement of tribal councils and communities, incorporating their views and culture specific needs will enhance their participation in the Program.	Relevant to the overall Program for enhancing access to services in tribal areas and participation of tribal population in the program
21	Right to Information Act, 2005	DoHFW	Provides a practical regime of right to information for citizens to secure access to information under the control of Public Authorities. The act sets out (a) obligations of public authorities with respect to provision of information; (b) requires designating of a Public Information Officer; (c) process for any citizen to obtain information/disposal of request, etc. (d) provides for institutions such	Relevant as all documents pertaining to the Program requires be disclosed to public.

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
			as Central Information Commission/State Information Commission	
22	Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.	DoFHW	An act that aims at providing a sense of security at the workplace that improves women's participation in work and results in their economic empowerment. It requires an employer to set up an "Internal Complaints Committee" (ICC) and the Government to set up a 'Local Complaints Committee' (LCC) at the district level to investigate complaints regarding sexual harassment at workplace and for inquiring into the complaint in a time bound manner. The ICC need to set up by ever organization and its branches with more than 10 employees.	Relevant and applicable to all health directorates and most of the health care facilities

3.2 Meghalaya State Specific Laws and Regulations

In addition to national laws and regulations, there are state specific laws and regulations applicable to the project and presented in Table (6) below.

Table 6: State-specific regulations/ Acts/ Laws

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
1	Meghalaya transfer of Land (Regulation) Act, 1971.	-State Government. -Autonomous District Council.	The Act provides that no land in Meghalaya shall be transferred by a tribal to a non-tribal or by a non-land tribal to another non-tribal except with the previous sanction of the competent authority.	Proper permission required for any land transfer if required by HCFs.
2	The Khasi Hills Autonomous District (Khasi Social Custom of Lineage) of 1997	Khasi Hills Autonomous District	This Act extend to all Khasis wherever they may be, on or after the commencement of this Act based on a set of provisions stated in this Act, may or may not receive his/her certificate of a Khasi or a Scheduled tribe.	Applicable as project area include Khasi Hills ADC areas. Will also be applicable based on ownership status of the HCF.
3	The Jaintia Hills Autonomous Village and Town Administration Rules 1975	Jaintia Hills Autonomous District Council	The Act has provisions on no objection required from JHADC for erection of new building, signboards, etc in areas that are within the jurisdiction of the JHADC.	Applicable, depending on the ownership status of the Health facility.
4	The Khasi Hills Autonomous District (Administration of Elaka) Act 1991	Khasi Hills Autonomous District Council (KHADC)	The Act provides that the KHADC to settle boundary disputes of an <i>elaka</i> or an administrative unit within the KHADC, alteration of areas, formation of new villages, alter name of village.	Applicable depending on ownership status of the HCF.

3.3 The World Bank’s Environmental and Social Standards (ESS)

The World Bank’s Environmental and Social Standards (ESS) are a cornerstone to its support to sustainable development. The Environmental and Social Standards set out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process. Any project that is likely to pose any form of adverse environmental impact will trigger the relevant ESSs. The ESSs relevant to this project are given below in Table (7).

Table (7): Applicability of World Bank’s Environmental and Social Standards

ESS	ESS Objectives	Relevance to the Project
ESS 1 Assessment and Management of Environmental and Social Risks and Impacts	<ul style="list-style-type: none"> • To identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with the ESSs. • To adopt a mitigation hierarchy approach to: <ul style="list-style-type: none"> (a) Anticipate and avoid risks and impacts; (b) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; (c) Once risks and impacts have been minimized or reduced, mitigate; and (d) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible. • To adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the project. • To utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate. • To promote improved environmental and social performance, 	<p>Relevant.</p> <p>The project aims at improving quality and utilization of health services through strengthening institutional, financing, human resource, informational technology and community related reform actions.</p> <p>The project does not involve any major civil works. However, in order to improve quality as well as meeting the BMW regulations, some amount of repair, renovations, and/or retrofitting involving minor civil works in the Health care facilities (HCFs) will be supported by the project.</p> <p>No significant adverse environmental and social impacts are anticipated with proposed activities based on the assessment conducted during project preparation.</p> <p>The project also supports health systems and service augmentation measures, these interventions will result in greater footfall at the facility level which will result in an incremental increase in bio-medical and other wastes, and risks arising from handling and disposal of healthcare wastes and other products (clinical and infectious waste materials, needles and sharps, and wastewater). This could lead to adverse impacts to the environment and human health if not managed</p>

Table (7): Applicability of World Bank’s Environmental and Social Standards

ESS	ESS Objectives	Relevance to the Project
	in ways which recognize and enhance Borrower capacity.	appropriately. There are no potential largescale, significant or irreversible impacts associated with the proposed project. The risks and impacts associated with minor civil works for repair and rehabilitation will be localized and temporary.
ESS 2: Labour and Working Conditions	<ul style="list-style-type: none"> • To promote safety and health at work • To promote the fair treatment, non-discrimination and equal opportunity of project workers. • To protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers, community workers and primary supply workers, as appropriate. • To prevent the use of all forms of forced labor and child labor. • To support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law. • To provide project workers with accessible means to raise workplace concerns. 	<p>Relevant.</p> <p>As mentioned above the project also aims to strengthen human resources and their availability and capacity at the project target facilities. Also, given the HCFs may require minor civil works and thus will involve contract labor for the same.</p> <p>While the direct workers such as government civil servant, doctors, nurses, paramedics, other support staffs will be working, which is fully compliant with the national/ state labor management regulations; there will be construction workers though small in numbers and at dispersed locations for undertaking minor civil works. And hence, a Labor Management Plan will be prepared. As per GoI and GoM, no Child labor and/or forced labor will be working on the project.</p>
ESS 3: Resource Efficiency & Pollution Prevention and Management	<ul style="list-style-type: none"> • To promote the sustainable use of resources, including energy, water and raw materials. • To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. • To avoid or minimize project-related emissions of short and long-lived climate pollutants. • To avoid or minimize generation of hazardous and non- 	<p>Relevant.</p> <p>Different types of wastes including hazardous wastes shall be generated by the HCFs e.g. medical waste, infectious waste, human waste, and e-waste etc. during delivery of healthcare in the health facilities. These wastes require their safe handling and disposal. Inadequate and improper waste management may lead to land and water pollution. Also, disposal of wastewater generated in the facilities</p>

Table (7): Applicability of World Bank’s Environmental and Social Standards

ESS	ESS Objectives	Relevance to the Project
	<p>hazardous waste.</p> <ul style="list-style-type: none"> • To minimize and manage the risks and impacts associated with pesticide use. 	<p>may act as hazard for transmission of disease and chemical toxicities due to dissolved chemicals such as laboratory re-agents, disinfectants, corrosives etc. The Bio-medical waste management plan shall address the above risks and suggest appropriate mitigation measures. Programmatic phasing out of mercury-based medical equipment is proposed to be worked with DoHFW through the State’s procurement systems. The project proposes to install renewable energy systems in select HCFs.</p>
<p>ESS 4 Community Health and Safety</p>	<ul style="list-style-type: none"> • To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and nonroutine circumstances. • To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams. • To avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials. • To have in place effective measures to address emergency events. • To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities. 	<p>Relevant.</p> <p>The communities may be exposed to health and safety hazards if these wastes are not properly managed and treated. The risk is further accentuated in the current COVID pandemic situation. Also, small repair activities may expose communities to minor noise, air pollution risks. Hence, community health and safety measures will be prepared, adopted and implemented under the project. Further, a Grievance Redress Mechanism (GRM) will also be enacted to address issues with grievances by all stakeholders.</p> <p>Given the scale and magnitude of construction limited to minor civil works, no labor influx is anticipated.</p>
<p>ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</p>	<ul style="list-style-type: none"> • To avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives. • To avoid forced eviction. • To mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: <ol style="list-style-type: none"> 1. providing timely compensation for loss of assets at 	<p>Not Currently Relevant.</p> <p>The project does not anticipate any land acquisition. Any repair, renovation and expansion is expected within the existing footprint of the health facilities. However, a site-specific screening will be carried out before any civil work and in case adverse impacts on squatters and encroachers are found, relevant resettlement instruments will be</p>

Table (7): Applicability of World Bank’s Environmental and Social Standards

ESS	ESS Objectives	Relevance to the Project
	<p>replacement cost</p> <p>2. assisting displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.</p> <ul style="list-style-type: none"> • To improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure. • To conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant. • To ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected. 	<p>prepared and implemented.</p>
<p>ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<ul style="list-style-type: none"> • To protect and conserve biodiversity and habitats. • To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity. • To promote the sustainable management of living natural resources. • To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities. 	<p>Not Currently Relevant.</p> <p>Even though Meghalaya has 70% of its land under forests and therefore having rich biodiversity, there is no indication that the proposed project will have any adverse impacts on biodiversity, natural habitats or living natural resources. Any adverse impacts arising due to waste management in healthcare facilities shall be addressed through ESS1.</p>
<p>ESS7: Indigenous peoples</p>	<ul style="list-style-type: none"> • To ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous 	<p>Relevant.</p> <p>Meghalaya is a Scheduled VI state under the Indian Constitution with</p>

Table (7): Applicability of World Bank’s Environmental and Social Standards

ESS	ESS Objectives	Relevance to the Project
	<p>Peoples.</p> <ul style="list-style-type: none"> • To avoid adverse impacts of projects on Indigenous Peoples, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts. • To promote sustainable development benefits and opportunities for Indigenous Peoples in a manner that is accessible, culturally appropriate and inclusive. • To improve project design and promote local support by establishing and maintaining an ongoing relationship based on meaningful consultation with the Indigenous Peoples affected by a project throughout the project’s life cycle. • To obtain the Free, Prior, and Informed Consent (FPIC) of affected Indigenous Peoples in the three circumstances described in this ESS. • To recognize, respect and preserve the culture, knowledge, and practices of Indigenous Peoples and to provide them with an opportunity to adapt to changing conditions in a manner and in a timeframe acceptable to them. 	<p>more than 86% of population belonging to primarily of three major tribes: Khasi, Garo and Jaintia (and their sub-tribes and other minor tribes). The project activities will benefit the local population with improved health care delivery system, and it is not expected that any of the activities related to the project will have any direct or indirect negative impacts on the tribal communities.</p> <p>The project will ensure free and prior informed consultations for activities impacting them and take necessary consent where needed to work towards reducing the risk of exclusion of vulnerable groups from access to project benefits and proposed measures to provide meaningful engagement with vulnerable groups and ethnic minorities.</p>
ESS 8 Cultural Heritage	<ul style="list-style-type: none"> • To protect cultural heritage from the adverse impacts of project activities and support its preservation. • To address cultural heritage as an integral aspect of sustainable development. • To promote meaningful consultation with stakeholders regarding cultural heritage. • To promote the equitable sharing of benefits from the use of cultural heritage. 	<p>Not Currently Relevant.</p> <p>Any physical cultural assets are not likely to be affected by the proposed activities as currently envisaged. However, screening of subproject will be conducted to avoid any risk associated.</p>
ESS 9 Financial	<ul style="list-style-type: none"> • To set out how the FI will assess and manage environmental and social risks and impacts associated with the subprojects it 	<p>Not Relevant.</p>

Table (7): Applicability of World Bank's Environmental and Social Standards		
ESS	ESS Objectives	Relevance to the Project
Intermediaries	<p>finances.</p> <ul style="list-style-type: none"> To promote good environmental and social management practices in the subprojects the FI finances. To promote good environmental and sound human resources management within the FI . 	FIs are not involved in this project.
ESS 10 Stakeholder engagement and information disclosure	<ul style="list-style-type: none"> To establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties. To assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance. To promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them. To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format. To provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances. 	<p>Relevant.</p> <p>The project involves a wide range of stakeholders including officials from DoHFW, target HCFs, key line departments/ agencies including (such as State pollution control board, Social Welfare and Tribal Development Department, Women and Child Development Department, Education Department, Autonomous development Councils - Khasi Hills ADC, Garo Hills ADC, Jaintia Hills ADC etc.), community groups, local governance institutions, elected representatives and public at large.</p> <p>Stakeholder engagement, consultation and communication, including grievance redress management and disclosure of information will be required throughout the project life. A Stakeholder Engagement Plan (SEP) has been prepared to address this.</p>

3.4 Guidance Related to COVID19

Ministry of Health and Family Welfare (MOHFW), Government of India has also issued several national policies and guidelines specific to COVID-19 pandemic and applicable to all States and UTs including Meghalaya (see <https://www.mohfw.gov.in/>). Since the outbreak of COVID19, India has proactively taken several measures for containing the disease which are in line with guidance from WHO, CDC and other international best practices

guidance and learning. While many of these policies are evolving based on the COVID19 pandemic situation in India, some of the guidance relevant to environmental and social measures are as below:

- i. Advisory on Social Distancing – March 2020 – MOHFW
- ii. Advisory on Mass Gatherings – March 2020 – MOHFW
- iii. Guidelines for home quarantine – March 2020 – MOHFW
- iv. Guidelines for handling, treatment and disposal of waste generated during treatment, diagnostics and quarantine of COVID19 patients – March 2020 and April 2020 – MOHFW/ Central Pollution Control Board (<https://www.mohfw.gov.in/pdf/63948609501585568987wastesguidelines.pdf>)
- v. Strategy of COVID19 Testing in India – March 17, 2020, from Indian Council of Medical Research
- vi. Standard Operating Procedures for Passenger Movement Post Disembarkation (including SOP for Quarantine) – March 2020 – MOHFW
- vii. Guidelines for Notifying COVID19 Affected Persons by Private Institutions – March 2020 – MOHFW
- viii. Gazette Notification – Essential Commodities Order 2020 – with regards to masks and hand sanitizers
- ix. National Pharmaceutical Pricing Authority (NPPA) Order regarding Masks, Hand Sanitizers and Gloves
- x. COVID19 Guidelines on Dead Body Management – March 15, 2020 – Director General of Health Services (DGHS), MOHFW (EMR Divisions)
- xi. Office Memorandum on Preventive Measures to be taken to contain the spread of Novel Coronavirus (COVID19) – March 16, 2020 – Department of Personnel and Training), Ministry of Personnel, Public Grievances and Pensions
- xii. Guidance document on appropriate management of suspect/confirmed cases of COVID-19 - Types of Covid-19 dedicated facilities
- xiii. Guidelines for Quarantine facilities COVID-19
- xiv. Guidance for COVID-19 & Pregnancy & Labour Management
- xv. Guidance document on appropriate management of suspect/confirmed cases of COVID-19 - Types of Covid-19 dedicated facilities
- xvi. Advisory issued by Ministry of Rural Development to the State Rural Livelihoods Missions on actions to be taken to address the COVID 19 outbreak
- xvii. Norms of assistance from State Disaster Response Fund (SDRF) in wake of COVID-19 outbreak
- xviii. Containment Plan for Large Outbreaks of COVID-19
- xix. Model Micro plan for containment of local transmission of COVID19
- xx. Advisory for quarantine of migrant workers
- xxi. Various mass awareness generation activities and guidance
- xxii. Various audio visuals and print material on Psycho-Social support along with setting up toll free helpline-08046110007
- xxiii. Ordinance to protect healthcare workers from abuse and assault
- xxiv. Guidelines on preventive measures to contain spread of COVID-19 in workplace settings
- xxv. Advisory for managing Health care workers working in COVID and Non-COVID areas of the Hospital
- xxvi. Guidance note for Immunization services during and post COVID outbreak
- xxvii. Advisory for managing Health care workers working in COVID and Non-COVID areas of the hospital, (June 18,2020)

World Health Organization (WHO) Guidelines

Several WHO resources are available for reference and adoption during project implementation. To help countries navigate through the challenges of COVID-19, WHO has updated operational planning guidelines in balancing the demands of responding directly to COVID-19 while maintaining essential health service delivery and mitigating the risk of system collapse. This includes a set of targeted immediate actions that countries should consider at national, regional, and local level to reorganize and maintain access to high-quality essential health services for all. In response to COVID-19 India has also updated several national guidelines that are aligned with those of the WHO. The WHO is maintaining a website specific to the COVID-19 pandemic with up-to-date country and technical guidance. Some of the technical guidance available are: (i) [laboratory biosafety](#), (ii) [infection prevention and control](#), (iii) [rights, roles and responsibilities of health workers, including key considerations for occupational safety and health](#), (iv) [water, sanitation, hygiene and waste management](#), (v) [quarantine of individuals](#), (vi) [rational use of PPE](#), (vii) [oxygen sources and distribution for COVID-19 treatment centers](#). A list of all relevant guidelines is presented in Annex- VIII. As the situation remains fluid it is critical that those managing both the national response as well as specific health care facilities and programs keep abreast of guidance provided by the WHO. The dedicated WHO website can be accessed at <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>. Some of the key guidance includes as below.

Advice for the public

- WHO advice for the public, including on social distancing, respiratory hygiene, self-quarantine, and seeking medical advice, can be consulted on this WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

Technical guidance

- [Infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#), issued on March 19, 2020
- [Recommendations to Member States to Improve Hygiene Practices](#), issued on April 1, 2020
- [Severe Acute Respiratory Infections Treatment Center](#), issued on March 28, 2020
- [Infection prevention and control at health care facilities \(with a focus on settings with limited resources\)](#), issued in 2018
- [Laboratory biosafety guidance related to coronavirus disease 2019 \(COVID-19\)](#), issued on March 18, 2020
- [Laboratory Biosafety Manual, 3rd edition](#), issued in 2014
- [Laboratory testing for COVID-19, including specimen collection and shipment](#), issued on March 19, 2020
- [Prioritized Laboratory Testing Strategy According to 4Cs Transmission Scenarios](#), issued on March 21, 2020
- [Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#), issued on March 24, 2020
- [Key considerations for repatriation and quarantine of travelers in relation to the outbreak COVID-19](#), issued on February 11, 2020
- [Preparedness, prevention and control of COVID-19 for refugees and migrants in non-camp settings](#), issued on April 17, 2020
- [Coronavirus disease \(COVID-19\) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health](#), issued on March 18, 2020
- [Oxygen sources and distribution for COVID-19 treatment centers](#), issued on April 4, 2020
- [Risk Communication and Community Engagement \(RCCE\) Action Plan Guidance COVID-19 Preparedness and Response](#), issued on March 16, 2020
- [Considerations for quarantine of individuals in the context of containment for coronavirus disease \(COVID-19\), issued on March 19, 2020](#)

- [Operational considerations for case management of COVID-19 in health facility and community](#), issued on March 19, 2020
- [Rational use of personal protective equipment for coronavirus disease 2019 \(COVID-19\)](#), issued on February 27, 2020
- [Getting your workplace ready for COVID-19](#), issued on March 19, 2020
- [Water, sanitation, hygiene and waste management for COVID-19](#), issued on March 19, 2020
- [Safe management of wastes from health-care activities](#), issued in 2014
- [Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus \(COVID-19\) outbreak](#), issued on March 19, 2020
- [Disability Considerations during the COVID-19 outbreak](#), issued on March 26, 2020

WORLD BANK GROUP GUIDANCE

- [Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings](#), issued on March 20, 2020
- [Technical Note: Use of Military Forces to Assist in COVID-19 Operations](#), issued on March 25, 2020
- [ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects](#), issued on April 7, 2020
- [Technical Note on SEA/H for HNP COVID Response Operations, issued in March 2020](#)
- [Interim Advice for IFC Clients on Preventing and Managing Health Risks of COVID-19 in the Workplace](#), issued on April 6, 2020
- [Interim Advice for IFC Clients on Supporting Workers in the Context of COVID-19](#), issued on April 6, 2020
- [IFC Tip Sheet for Company Leadership on Crisis Response: Facing the COVID-19 Pandemic](#), issued on April 6, 2020
- [WBG EHS Guidelines for Healthcare Facilities](#), issued on April 30, 2007

4 ENVIRONMENTAL AND SOCIAL BASELINE

4.1 Key Health Sector Challenges in Meghalaya

There are significant challenges in the availability, quality and management of health human resources. In 2018-19, almost 33 percent of staff nurse positions and 25 percent of general physician positions were vacant. These include the one-third of Medical Officer posts that were unfilled in PHCs. The state has one medical college and is yet to establish its own Medical Council. The state has a Nursing council established in 1994 but is only partially functional as they are yet to formulate their byelaws. Lack of opportunities for higher education and continuing medical education have contributed to a shortage of specialists. Almost 60 percent of specialist posts are vacant; which include 42 percent vacancies at in District Hospitals. A 2014 World Bank study found that health staff motivation and absenteeism pose large challenges, particularly in rural areas, where housing and household economic and education opportunities are significant constraints. This is compounded by poor working conditions, salary payment delays and lack of incentives to work in isolated areas. There are gaps in monitoring, supervision and performance management, in post creation and staff allocation planning, and pay and promotion policies.

According to the National Health Accounts 2014-15, out-of-pocket expenditure (OOPE) on health constitutes about 63% of total health expenditure in India. OOPE is higher in urban areas as compared to rural areas, across both public and private sector. The state is implementing three national schemes to improve access to medicines: The Free Drugs and Diagnostics Service Initiative, Jan Aushadhi (generic medicines) and Amrit Pharmacy (social marketing of generic medicines). However, the uptake of these services is hampered by weaknesses in procurement and supply chain management systems. Further given difficult access to health facilities beneficiaries are forced for purchasing drugs and bearing transportation costs constituting to high OOPE by households.

Despite quality assurance teams for the National Quality Assurance Standards (NQAS) remaining functional since 2010, in 2018-19, only 23 out of 108 PHCs and 7 out of 28 CHCs implemented the NQAS grading system¹⁴, though we see an improvement in the incremental indicator performance against the quality indicator “proportion of District Hospital / Sub-Divisional Hospital with quality assurance certificates” as per the Niti Aayog Health Index Report 2019. Investments to address identified gaps in quality have been limited, which is reflected by the grades and certifications received by facilities. In 2019-20, only 2 of the 108 Primary Health Centres received Quality Accreditation Certificates. In 2017-18, only none of the 28 Community Health Centres and one of the 13 Sub-District and District Hospitals were awarded this certificate¹⁵.

4.2 Waste Management in Meghalaya

4.2.1 Solid Waste Management

Meghalaya is rapidly urbanizing with large number of towns, business establishments, and other commercial institutions are emerging at a faster pace. The solid waste in Meghalaya is managed by following three authorities:

- i. **The State Municipal Board:** Primarily responsible for collection of waste from the localities that fall within the municipal area of the Shillong City. The waste is collected and disposed in a common dumping ground at Marten Shillong, which is managed by the State Pollution Control Board (PCB).

¹⁴ Government of India. 2019a.

¹⁵ Government of India. 2019a.

- ii. **The Dorbar/ Local Health and Sanitation committees:** Headed by the respective Headmen, the Dorbar and local sanitation committees are responsible for the collection and disposal of solid waste from the localities/ villages within their jurisdiction. These areas lie outside the jurisdiction of the Municipal Board and are larger in number since it consists of the urban localities of district headquarters and all the villages in the State. The waste collected is disposed in the marten dumping ground in Shillong (for those villages in the periphery of Shillong; or the localities have their own designated dumping ground where waste is buried or burnt.
- iii. **The Shillong Cantonment Board:** This is the Military area where solid waste is collected and disposed by the Cantonment Vehicles under the management of the Cantonment Executive Officer.

4.2.2 Bio-Medical Waste Management

The Meghalaya State Pollution Control Board is primarily responsible for the management of biomedical waste in the state. Although the state follows the Bio-Medical Waste (Management and Handling) Rules 2016 and further amendments in 2018, it is yet to efficiently adhere to all the rules as provided in the Act. The Bio medical waste in the State comes from 670 health facilities (excluding the private pathological laboratories private clinics and nursing homes, blood banks, and Veterinary hospitals). The health facilities in Meghalaya includes 12 Government District Hospitals, 28 Community Health Centers (CHCs), 113 Primary Health Centers (PHCs), 442 Sub Centers, 13 Govt dispensaries, 19 Urban Health Centers, 1 Military Hospital, 11 Private Hospitals, 1 Mental hospital and 2 TB hospitals. The State has 1 Regional Hospital (North East Indira Gandhi Regional Institute of Health and Medical Sciences) which has its own bio medical waste management system which fully adheres to the Bio Medical Waste Rules 2018.

The State has one common bio medical waste treatment facility (CTF) in Shillong which is operated by the Shillong Municipal Board, but the facility is neither fully functional nor adhere to the Bio Medical Waste 2016/ 2018 rules. The bio medical waste is segregated at source and all hospitals have autoclaves, shredders/ sharps destroyers, and follow the coloured coded system of waste disposal within the hospital. The waste is disposed of by deep burial and the liquid waste is discharged directly into the drains after chemical disinfection. Other waste generated in the hospital is burnt at a designated place in the health facility. In rural areas, there is no common bio-medical waste treatment/ disposal facilities to collect wastes, the biomedical waste is managed through on-site disposal through use of sharps pits for sharps waste and deep burial pits for other infectious biomedical wastes. Under the project, a waste characterization study will be undertaken within first 6 months of project effectiveness to understand the priority areas and have a programmatic approach towards management of BMW.

The Government of Meghalaya through the Directorate of Urban Affairs is in the process of setting up of a common Bio Medical Waste Treatment and Disposal Facilities at Shillong, Jowai and Tura and has also notified guidelines for solid waste management within Shillong City.

The Health and Sanitation Committees at the village level are also responsible for the monitoring of the health facilities in their area and report issues of non-compliance to the Block Development Office or the CHC/PHC management committees.

Figure 3: Current Practices of Bio-Medical Waste Management in Meghalaya

<i>Waste segregation at source in a Health Care Facility</i>	<i>Dry Hospital Waste Disposal</i>
--	------------------------------------



Storage of Biomedical Waste



Dumping of HCF Solid Waste





4.2.3 Segregation and Collection of Waste

The primary study conducted in sample health care facilities suggests segregation and collection of medical waste practices is as per norms in District Hospitals (DH), CHC and PHCs. However, one of the key issues being BMW mixed with general waste across the facilities. While treatment of liquid waste before discharge is certainly a concern in PHCs. While needle destroyer is available in all HCFs, the Mercury spill treatment kit are generally lacking in CHCs and PHCs. Table (8) below presents the availability of equipment and consumables and practices of segregation in different types of health facilities.

Table (8): Current Practice of Bio-medical Waste Segregation and Collection in Meghalaya

Sl. No.	Indicators	DH	CHC	PHC	Total
1	Segregation Being Done	100%	100%	100%	100%
2	Containers/ Bins Available	100%	100%	100%	100%
3	Colour coded containers as per BMW rules 2016 (Amended 2018)	100%	100%	100%	100%
4	Needle destroyers available	100%	100%	100%	100%
5	Is Mercury spill treatment kit available	100%	50%	83%	75%
6	Does the HCF have SOP for mercury spill management	100%	50%	92%	88%
7	BMW mixed with other waste	50%	0%	25%	25%
8	Is liquid waste being treated before discharge into sewers.	100%	100%	58%	69%
9	There is a committee/ Nodal person assigned for BMW Management	100%	100%	75%	81%
Total Sample		2	2	12	16

Source: Primary Study, July/August 2020

4.2.4 Storage and Transportation of Bio-medical Waste

While there is separate storage facility for BMW in District hospitals, many CHC and PHC lack in this and also a separate route for transporting waste. The primary data suggests that the clearance of waste takes more than 48 hours at majority of the times. The Table below presents the current practices of storage and transportation of BMW in different type of HCFs,

Table (9): Storage and Transportation of BMW in HCFs

Sl. No.	Indicators	DH	CHC	PHC	Total
1	Is any waste being stored at the facility for more than 48 hours	50%	0%	42%	38%
2	Record of every day's waste generation available	100%	50%	67%	69%
3	Separate dedicated BMW storage area	100%	50%	33%	44%
4	Separate route for the waste transport through the HCF	50%	0%	17%	19%
5	Vehicle carrying BMW is authorized for such specialised work	100%	0%	50%	50%
6	HCF have policy on the waste type, collection time and weighing of waste	50%	50%	50%	50%
7	Annual Report to SPCB/ PCC	100%	100%	75%	81%

Sl. No.	Indicators	DH	CHC	PHC	Total
	Total Sample	2	2	12	16
Source: Primary Study, July/August 2020					

4.2.5 Treatment and Disposal of Bio-medical Waste

As mentioned in the section above, that there is common treatment facility (CTF) for BMW in Shillong and being managed by Shillong Municipal Board, it is not fully functional and government is in the process of setting up additional CTFs in Shillong (East Khasi Hill District), Jowai (Wesyt Jaintia Hill District) and Tura (West Garo Hill District) with support from Ministry of Urban Affairs. In absence of that, most other HCFs including district hospitals across the state rely on in-situ treatment using sharp pits, and deep burial pits. However, some of the PHCs lack even that. Also, availability of equipments such as autoclave and microwave are lacking across the HCFs.

Sl. No.	Indicators	DH	CHC	PHC	Total
1	There is a sharps pit(s) for on-site disposal of sharps wastes	100%	100%	92%	94%
2	Facility have a deep burial pit(s) for on-site disposal of the infectious waste	100%	100%	83%	88%
3	HCF uses microwave/ autoclave to treat BMW on site	50%	50%	25%	31%
4	Plastic syringes, tubing and glassware treated with disinfectants before disposal	100%	100%	92%	94%
5	Facility have arrangements with a recycler for recycling of wastes	50%	0%	42%	38%
	Total Sample	2	2	12	16
Source: Primary Study, July/August 2020					

4.2.6 Occupational Health and Safety Measures

The practice of worker's health and safety (WHS) measures such as issue of PPEs while handling wastes are reported to be relatively better in at District Hospital and reduces with hierarchy of the HCFs. The procedures for recording and reporting of the incidents appears deficient across all levels of the HCFs. Procedures for preventive activities e.g. Post Exposure Prophylaxis (PEP) and immunization of workers against Hepatitis B are deficient in CHCs and PHCs as compared to DHs. Health check-up of workers, an important surveillance procedure is being carried out only in half of the facilities on an annual basis. Regular upkeep of medical records of waste handlers is deficient among CHCs and PHCs. Training of new workers and on periodical basis needs to be strengthened. During the Covid19 pandemic the Department has also been providing training programmes for management of COVID-19 associated BMW and additional provision of PPEs to safeguard from infections in Covid19 designated HCFs. Table (11) below presents the status of various indicators on

WHS across different type of HCFs in Meghalaya. This suggests the need for WHS in primary health care facilities. These suggest the need for improving practices and procedures health care facilities especially with regard to recording and reporting of incidents and keeping of training and medical records.

Table (11): Occupational and Health Safety Measures

Sl. No.	Indicators	DH	CHC	PHC	Total
1	Employees wear protective equipment (PPE) while on the job including handling wastes	100%	50%	92%	88%
2	Past incidence of occupational injury/ accident	50%	50%	8%	19%
3	Keep record of such injury/ injury/ accident	50%	50%	33%	38%
4	HCF has a procedure for Post Exposure Prophylaxis (PEP) for follow up and management of needle stick injuries	100%	50%	67%	69%
5	HCF staffs and those involved in handling of BMW are immunized (against the Hepatitis B and Tetanus)	100%	100%	92%	94%
6	Health check-up of all the employees being conducted regularly (at least once in a year)	50%	50%	58%	56%
7	BMWM training manual for staff available	100%	100%	67%	75%
8	Training on BMWM conducted on the induction of new employees	100%	100%	58%	69%
9	Training on BMWM conducted on regular basis	100%	100%	58%	69%
10	Record of employee's training on BMWM available	100%	50%	67%	69%
11	Medical record of waste handlers available at HCF	50%	50%	58%	56%
Total Sample		2	2	12	16

Source: Primary Study, July/August 2020

4.2.7 Other Environmental Aspects

The HCF generally lack in having valid consent to operate under Air act and Water act. Also, phasing out Mercury based equipment seems to be slow and need attention of the project. Overall, the general concern related to resource efficiency and conserving environment is not up to the desired level and need addressing.

Table (12): Other Environmental Aspects

Table (12): Other Environmental Aspects

Sl. No.	Indicators	DH	CHC	PHC	Total
1	HCF possess a valid Consent to operate under Air Act, 1981	50%	50%	17%	25%
2	HCF possess a valid Consent to operate under Water Act, 1974	50%	50%	17%	25%
3	HCF using or planning to use Mercury free equipment	50%	100%	58%	63%
4	Electronic waste e.g. Computer monitors, CPU, Old mobiles, old electronic equipment, batteries etc are generated from the facility	50%	50%	67%	63%
5	HCF initiated or implemented initiatives for conserving resources e.g. electricity, water, etc	0%	0%	25%	19%
Total Sample		2	2	12	16
Source: Primary Study, July/August 2020					

4.2.8 Infrastructure Condition and Access

About a fourth of the HCFs have squatters in their premises. While district hospitals and CHCs have all weather roads, about half of the PHCs are not connected to all weather roads. Also, a good number of PHCs lack in basic infrastructure facilities with respect to toilets for men and women, and safe drinking water for patients. The condition of living quarters are also very poor. The HCFs do have health committee in line with Rogi Kalyan Samitis with community participation and may require strengthening for better accountability.

Table (13): Infrastructure Condition and Access

Sl. No.	Indicators	DH	CHC	PHC	Total
1	Land owned by HCF and have ownership paper/ documentation	50%	100%	67%*	69%
2	HCF land ownership paper demarcate boundary	100%	100%	83%	88%
3	Are there any squatters (including residential, commercial units) on the HCF land	50%	50%	17%	25%
4	Health facility connected with all-weather road free of obstacles	100%	100%	50%	63%
5	Health facility have a boundary wall	100%	0%	83%	75%
6	Health facility have separate functional toilets for men and women in adequate numbers	100%	100%	75%	81%
7	Health facility have adequate safe drinking	100%	100%	83%	88%

Table (13): Infrastructure Condition and Access

Sl. No.	Indicators	DH	CHC	PHC	Total
	water for patients				
8	Health facility have health committee with community participation to oversee the overall functioning of the facility	100%	100%	92%	94%
Total Sample		2	2	12	16

Source: Primary Study, July/August 2020

Note: * 25% on Rented/ leased land



Transporting patient from village to HCF



A makeshift stretcher to carry a patient from a remote village to the HCF



ASHAs seen pushing an ambulance up a bad slope, to reach a village for immunisation programme



HCF quarter ceiling leakage, this is common in most HCFs

4.3 Status of Women in Meghalaya

The matrilineal system followed in all three major indigenous communities of Meghalaya has their share of limitations. Women have the privilege of lineage being passed on from their side and also have part ownership in inheritance and control of family property, however when it comes to decision making, women are not allowed to take part in the local governance system. The decision-making power is thus mostly vested in their husbands or their maternal uncles when it comes to Khasis. The Garos whose head is a woman Nokma, leaves all the management to her husband. The Jaintias do not have claim over their husband or his property and are under the protection of their maternal uncles and brothers.

The village administration is mainly headed by men and women can only act as a moral force behind it. They may give their view and suggestions to men on different issues, but it is the prerogative of the men to use it. It is only in the recent years that women have also started to attend and participate in the proceedings of a dorbar in a few urban localities. Negotiations and decision making between governments and other departments over the use of land do not fully engage communities especially women, and the decision-making power lies only in the hands of village heads. It was found that most of the land in Meghalaya is headed by women. Women have had a fairly important role in Khasi, Jaintia and Garo society in terms of decision making in relation to choose of crops and marketing of crops.

Despite having a matrilineal society, Meghalaya lags behind in several social indicators affecting women, such as poverty, illiteracy, unemployment, high drop-out rates, early marriages. It is only in the recent times that the female population have done considerably well in education and have come quite at par with its male counterpart. Besides this, women in Meghalaya by and large are free from many social taboos and constraints of the larger Indian society such as dowry, female feticide, neglect of girl child and other social evils.

4.3.1 Women work participation rate

Women's participation in the workforce in Meghalaya is higher than the national average, whereas men's participation is seen to be lower than the national average. According to the Census of India, around 35 percent of women in rural Meghalaya are in the labour force. Further, relatively more women in rural Meghalaya are marginal workers compared to their counterparts in the rest of the country. The all India figures of labour force participation are 53 percent and 30 percent respectively for men and women, which is lesser than the state figures. Interestingly, Working Participation Rates (WPR) of women has declined in rural Meghalaya from 39 percent in 1991 to 35 percent in 2011.

4.4 Current Information Education and Communication (IEC) Mechanism

The current IEC activities are linked to NHM implementation. IEC material is available on the national NHM website under the headings of (1) Print materials, (2) Audio Materials (3) Video Materials, (4) Training materials, (5) SBA Presentations (6) LaQshya. Table below presents the IEC material available on NHM site in different types of media and thematic area. They are downloaded and further adapted to local language and culture.

S.No.	Type of Media	Thematic Area
1	Print Media	Maternal Health (MH), Maternal Health Logo, MH Game, MH Hoarding, MH Posters, MH Wall-painting. Making Abortion Safer: Accredited social health

Table (14): IEC Materials Available at NHM Site for Different Thematic Areas		
S.No.	Type of Media	Thematic Area
		activist (ASHA)- Auxiliary nurse midwife (ANM) Booklet, Flip and answer book, Kalyani Poster, Leaflet
2	Audio Materials	MH Song, 48hours Stay , Antenatal care (ANC), iron folic acid (IFA), Janani Shishu Suraksha Karyakaram (JSSK)
3	Video Materials	Making Abortion Safer, Safe Motherhood, 48-hrs Jaldbazi, ANC, IFA Tablet, JSSK
4	Training Materials	SBA Training Videos - Module 1 to module 5
		SBA presentations: 1b Infection Prevention, 2a Quality Antenatal Care, 2b Antenatal Check-Up History taking, 2d Antenatal Check-Up Abdominal Examination, 3a Antenatal Care Laboratory Investigations, 3b Antenatal Care Interventions, 3c.i Antenatal Care Counselling, 3d Intrapartum Care Assessment, 4 Intrapartum Care during labour, 5b Resuscitation of New born, 5c Postpartum Care, 6b Quality of care

5 ASSESSMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

The proposed project will bring significant health benefits to the local population by improving the quality and utilization of the health services in the state.

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
Component 1: Internal performance management to improve ecosystem of health service delivery			
Improved service delivery and quality at Health facility level	<ul style="list-style-type: none"> State and subsidiary departments – focus on Policy reforms Incentive strategy will be designed and used to promote improving the utilization and quality of health services and practices Define indicators for performance monitoring Signing of Internal performance Agreements (IPAs) at three levels – i.e. State/ Directorate level, District level, and CHC/PHC level Strengthening monitoring, coordination and timely supply of resources Improving the MHIS to capture information aiding the performance monitoring mechanism Developing quality scoring and indexing system in relation to key functions of the institution/ facility Capacity building of hospital and health facility staff on techno-managerial skills and 	<ul style="list-style-type: none"> The performance management activities will improve the utilization and quality of health services and practices, not only at the facility level but also at the individual level, which will have overall a positive impact of the project. Given the Internal Performance Management (IPM) is new to Meghalaya – both HCF staffs as well as community may not fully understand the efficacy of it and hence for better positive outcome there is a need for building awareness among the key stakeholders and target community. This will impact in having more trust in the system and increased footfalls. 	<ul style="list-style-type: none"> HCFs in backward and remote districts and blocks to be also undertaken for IPM activities to improve access to performance link quality health care in those areas. Project specific Social and Behaviour change communication (SBCC) strategy to be prepared and implemented incorporating communicating performance management system and its results. SBCC will be prepared based on rapid assessment of health seeking behaviours of the target population, awareness and access to MHIS, and the health staffs' perception on quality of services delivered. The SBCC aims towards making positive

Table (15): Environment and Social Risks and Impacts			
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
	<p>aligning incentives to perform better</p> <ul style="list-style-type: none"> • Piloting performance-based incentives and rewards • Reinforcing local-level accountability mechanism • Performance verification mechanism – both internal and external 	<ul style="list-style-type: none"> • With increased footfall, there will be an incremental increase solid, biomedical and liquid waste streams (chemical reagents, wastewater effluents). And, if waste streams are not adequately treated or disposed, there could be impacts/ contamination to surrounding soil, water and air environments and on nearby communities. 	<p>behaviour change and to create demand for quality health services. The SBCC shall be prepared within first six months of the project being effective and before the IPA is signed.</p> <ul style="list-style-type: none"> • Preparation of SBCC strategy shall also address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HCFs for the same. • BMWM to be strengthened as per measures elaborated in BMWM sub-component
Component 2: Improving Management and Accountability Systems			
Improvement of planning, management, and monitoring functions	<ul style="list-style-type: none"> • Strengthening the administrative structures responsible for health system management and will include technical support and training for administrators at the state and district levels on planning, management and technical issue • Project Management Agency to be contracted and placed to support PMU • knowledge exchange to be planned and 	<p>This will help support the positive outcome of the project. However, the current gap is in terms of not having any dedicated environmental or social specialist to support the program.</p>	<ul style="list-style-type: none"> • An Environmental specialist with experience on BMWM, and a Social Specialist with experience in stakeholder engagement to be placed the in PMU to oversee the implementation environmental and social risk mitigation activities as per ESMF including periodic monitoring and reporting on E&S activities throughout the

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
	<p>undertaken with other states in the region on technical and system development innovations and reforms</p> <ul style="list-style-type: none"> Integration of existing information systems for better management and oversight 		<p>life of the project .</p>
<p>Development of Human Resource for health</p>	<ul style="list-style-type: none"> Planning and management of human resources with detailed enumeration of the HR across cadres with mapping of current supply and demand and development of an HRH policy with a clear forecasting Development of capacity building plan with timeline supporting long-term strategies for health cadres to deliver continuous medical education Addressing shortages in human resources for health, especially in PHCs and CHCs by contracting in specialist and outsourcing of PHCs and CHCs with PPP contracts Infrastructure improvement of government nursing schools for upgrading from GNM to BSc colleges 	<ul style="list-style-type: none"> Activities with adequate human resources and capacity building across the implementation chain is likely to introduce positive environmental, health, and safety provisions for HCFs, at the same due to better service provisions, and footfall at the HCFs. The project does not support any large-scale construction and restricted to minor repair and renovations within the existing footprint of the facilities, and hence no land acquisition or need for any additional land is anticipated. 	<ul style="list-style-type: none"> Training need assessment (TNA) of HCF staffs on BMWM followed by training of HCF staffs on BMWM. HCF staff's training and capacity building programs to include occupational health and safety measures to be Covid19 specific measures, GRM, SEA/SH, and other such areas. Training on conducting Screening and applying the mitigation measures to HCF in-charges by PMU E&S specialists. Screening of sub-projects to avoid any land acquisition or involuntary resettlement and to rule-out any adverse impacts related to resettlement of

Table (15): Environment and Social Risks and Impacts			
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
			<p>squatters/ non-title holders.</p> <ul style="list-style-type: none"> • Safety norms as per GoI/ GoM to followed for any repair, renovation and/or retrofitting activities.
Strengthening of procurement and supply chain management	<ul style="list-style-type: none"> • Strengthening procurement and supply chain management (PSM) system including organizational strengthening, business process reengineering, expanding warehouses, inventory monitoring capacity and PSM information system. • Capacity building for improvement of PSM at state and sub-state level • Need-based retrofitting and renovations of warehouses to improve storage capacity 	<ul style="list-style-type: none"> • No specific social risk associated with this activity • Mechanism for disposal of expired medicine requires standard protocol to be followed. • While use of mercury based equipment are suggested to be phased out as per GOI guidance, it is still being used in the state. 	<ul style="list-style-type: none"> • SOP to be prepared for notification and disposal of expired medicine. • All mercury based equipment will be phased out overtime with making a beginning by ensuring any new procurement will not have any mercury based equipment.
Strengthening of biomedical waste management	<ul style="list-style-type: none"> • Support implementation of the BMWM plan • Investments in necessary infrastructure, equipment and training • Capacity building of staff on BMWM and immunization of health care providers • IEC 	<ul style="list-style-type: none"> • This will help strengthen the overall management of BMW. Given if waste streams (chemical reagents, wastewater effluents) are not adequately treated or disposed, there could be impacts /contamination to surrounding soil, water and air environments and on nearby communities. • Also, there is potential long-term risk could be associated with 	<ul style="list-style-type: none"> • Waste characterization exercise covering identification of types and quantities of different wastes generated during healthcare activities in the health facilities to be conducted at the initiation of implementation. • Building capacity of HCF staffs on bio-medical waste management – both solid and liquid waste.

Table (15): Environment and Social Risks and Impacts			
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
		poor operations and maintenance of waste treatment and disposal technology.	<ul style="list-style-type: none"> • All waste streams (solid and liquid waste will be managed in accordance with the principles of the biomedical waste management rules, 2016 (amended 2018), and their implementation guidelines. • SOPs for management of e-waste, plastics, pharmaceuticals, and hazardous waste (x-ray developer) in accordance to the relevant rules to be developed and implemented. • SoP for notification and disposal of expired medicines and other hazardous chemicals so that it is not disposed in regular solid and liquid waste streams. • Checklist and SOP for infection control measures to be developed. • Health and safety requirements to be included in the service contract of various service providers e.g. sanitation services, bio-medical services, and laboratory services etc. • As part of the bio-medical waste

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
			<p>management plan, effluent Treatment Plants (ETP) should be provided to treat the washing and other wastewater generated from larger health facilities.</p> <ul style="list-style-type: none"> • For smaller health facilities, wastewater from key generating areas shall be neutralized and / disinfected near the source and discharged externally in safe manner. • Provisions e.g. septic tank for safe treatment and disposal of sewage from health facilities to be developed in areas where sewerage system is lacking. • No-run-off from site should allow to get into rivers/ water streams or accumulate at site or nearby areas without confirming to safe standards of discharges, as per BMW Rules, 2016. • To ensure compliance and facilitate the implementation of the regulation on Bio- Medical Waste Management Rules, the following mitigation actions should be in place:

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
			<ul style="list-style-type: none"> a. Labeling of waste containers as per specifications. Segregation of wastes near to their source of generation, transportation to designated storage area within the facility. b. The requirements for transfer and reporting of medical wastes within the HCF and between the disposal center. c. Emergency mitigation measures for accidents/ leakages/ spills and release of medical waste d. Protection/OHS for workers during the sorting, collection, transportation and temporary storage. e. Where facilities are too remote and not viable to be connected to CBMWTF, decentralized systems such as deep burial pit will be constructed on site. f. In all health facilities, segregation of liquid chemical wastes at the source,

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
			<p>pretreatment and neutralization before mixing with other effluents from the facilities will be carried out, as per BMW Rules.</p> <p>g. For larger facilities, ETP will be established in DH. For smaller facilities with no sewerage connection, suitable arrangements such as liquid disinfection, septic tank and soak pit will be introduced.</p> <ul style="list-style-type: none"> • The project will also provide capacity building support to ensure occupational safety measures are followed by healthcare staff in facilities. • Follow WHO and MOHFW guidance in management of Covid-19 waste.
<p>Improving coverage and strengthening institutional capacity of the Megha Health Insurance Scheme (MHIS)</p>	<ul style="list-style-type: none"> • Improve population coverage, increase utilization, reduce spatial disparities in seeking benefits, and strengthen the institutional capacity of the Insurance Society • Developing comprehensive communication strategy and implementation to cover unreached population 	<ul style="list-style-type: none"> • No specific environmental risk associated with this activity. • This will help support the coverage of population under the MHIS. However, in order to ensure coverage of marginalized 	<ul style="list-style-type: none"> • The SBCC strategy for the project to incorporate communication on mechanism to access and take benefit of the MHIS by eligible population including marginalized and vulnerable population.

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
	<ul style="list-style-type: none"> Strengthening IT infrastructure and MIS for scheme and expanding the tollfree helpline for the scheme Strengthening capacity including improving operational guidelines, SOPs, capacity building of hospital, district and state level staff on SOPs and protocols Upgrading the office infrastructure of the MHIS 	<p>and vulnerable population, it requires good outreach to them in building awareness about the scheme.</p>	
Component 3: Improve health service provision and quality			
<p>Improvements in the delivery and quality of health services at district hospital, CHC and PHC</p>	<ul style="list-style-type: none"> Quality certification (NQAS) of health facilities Investments in health service infrastructure to improve functionality – including water supply, sanitation and electrical power; strengthening technical infrastructure like neonatal and paediatric intensive care units, engagement with private sector wherever required, strengthening forward and backward referral linkages and for improving knowledge exchange programs Retrain a pool of trainers to undertake facility wise trainings and mentoring along with hands-on approach for implementing NQAS Making health facilities environmentally 	<ul style="list-style-type: none"> Overall, the activities will have positive environmental and social impact by improving the quality of basic infrastructure facilities in HCFs. Quality certification process involves improving the BMWM and other environmental hygiene, so it will be beneficial. The project does not support any large-scale construction and is restricted to minor repair and renovations within the existing footprint of the facilities, and hence no land acquisition or need for any additional land is 	<ul style="list-style-type: none"> Set up mechanism for building and sustaining BMW management, sanitation and hygiene standards. SOP to be prepared for upkeep and O&M of equipment installed and related OHS practices. Screening to be done for infrastructure upgradation of HCFs/ other project facilities e.g. Nursing school/ college to avoid any land acquisition or involuntary resettlement. Screening will also be conducted to rule-out any adverse impacts

Table (15): Environment and Social Risks and Impacts

Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
	friendly and energy efficient – use of solar power, rainwater harvesting and landscape management	anticipated.	related to resettlement of squatters and non-title holders.
Pilot innovations in Health Wellness Centres (HWCs)	<ul style="list-style-type: none"> • Support the state in implementing the Ayushman Bharat strategy for strengthening Health and Wellness Centres, with capacity to provide an expanded package of services, including for primary screening, counselling and referral for NCDs • Fill gaps in human resources, infrastructure, and equipment necessary for upgrading targeted HWC facilities • Pilot innovative strategies for the select sub centres- health wellness centres in augmenting their service delivery through tele-medicine, improving the service delivery through patient flow management run by the government ANM and improvement in service delivery through PPP- NGO mode 	While women tend to access services geared towards maternal care and childcare, they often delay treatment seeking behaviour for diseases such as diabetes, hypertension, breast, cervical and oral cancers etc. This can be for a variety of reasons including well-documented time-poverty, double burden of unpaid domestic work and often put the health of their children and male members of the family at a higher priority than their own health.	<ul style="list-style-type: none"> • Preparation of SBCC strategy shall address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HWCs. • SOP to be prepared for upkeep and O&M of equipment installed and related OHS practices.
Pilot Community level intervention for health and nutrition services	<ul style="list-style-type: none"> • Pilot community led multisectoral approach for women and child development in coverage areas of targeted HWCs. • Capacity building of community structures • Comprehensive SBCC strategy 	No specific environmental and/or social risks associated	
Component 4: Contingent Emergency Response Component			

Table (15): Environment and Social Risks and Impacts			
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures
Provision of immediate response to an Eligible Crisis or Emergency, as needed		ESMF will be update as and when CERC is invoked for any activity to assess the risk and impacts.	Provisions for safe handling and disposal of the wastes generated to be applied to safeguard environment. and community health. Provisions for the safety and health of health workers and other emergency responders to be implemented, based upon the type of hazards exposed.

The project’s SEA/SH risk has been rated as low as the project will not include any major civil work. However, given that the State has prioritized women in their programs and schemes, and gender based violence is one of the important area that the state plans to address, the health professionals and health systems play an important role in caring for survivors of sexual violence, it is important to build capacity of health care professionals by sensitizing them to sexual exploitation and abuse (SEA) and sexual harassment (SH) issues and measures as part of their training, and address mandatory provisions of ‘The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013’ in DOHFW and in project facilities such as Internal complaint committees (ICC) for reporting any sexual violence and taking necessary measures. Also, Ministry of Women and Child Development (WCD), Government of India had initiated setting up One Stop Center (OSC) to deal with women facing sexual harassment and are intended to support women affected by violence, in private and public spaces, within the family, community and at the workplace, and 11 such OSCs are in different districts of Meghalaya.

Component 4 of the project is a Contingent Emergency Response Component (CERC). The project ESMF will be updated in the event the contingency component becomes activated during project implementation. In addition, a CERC operations Manuel will be prepared during project implementation to govern the operation of the component, this document will be aligned with the ESMF at the time of preparation and include provisions to ensure environmental and social due diligence in line with the requirements of the ESF. A list of typical positive and negative activities associated with CERC implementation will also be developed and included in the updated ESMF and the CERC manual.

6 ENVIRONMENT AND SOCIAL MANAGEMENT PLAN (ESMP)

The project involves various stages of planning and design for improvement of health care services at different levels of health care facilities. As part of improvement, a number of health facilities will undergo minor repair, renovations and retrofitting for infrastructural improvement. The ESMP (Table-16) discusses the risks and impacts and required mitigation measures as well as outlines the responsibilities and timelines for applying the suggested mitigation measures.

Table (16): Environment and Social Management Plan (ESMP)

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
Improved service delivery and quality at Health facility level through IPA	<ul style="list-style-type: none"> Health Directorates and Health facility's Internal Performance Management (IPM) is new to Meghalaya – both HCF staffs as well as community among other stakeholders may not fully understand the efficacy of it and hence need awareness creation for better outcome including enhanced trust in the system and increased footfalls. With increased footfall, there will be an incremental increase solid, biomedical and liquid waste streams 	<ul style="list-style-type: none"> HCFs in backward and remote districts and blocks to be also undertaken for IPM activities to improve access to performance link quality health care in those areas. Project specific Social and Behaviour change communication (SBCC) strategy to be prepared and implemented incorporating communicating performance management system and its results. BMWM to be strengthened as per measures elaborated in BMWM sub-component. 	<ul style="list-style-type: none"> HCFs in backward and remote areas/ districts are also selected for IPA in proportionate manner. SBCC strategy and action plan prepared and adopted by the PMU/DOHFW. IPA performance rating shall also include BMWM related indicators. 	PMU-DOHFW	Year-1 and continue throughout the project life

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
	(chemical reagents, wastewater effluents). And, if waste streams are not adequately treated or disposed, there could be impacts/contamination to surrounding soil, water and air environments and on nearby communities.				
Strengthening planning, management, and monitoring functions	<ul style="list-style-type: none"> The risk emerges from not having any dedicated environmental or social specialist in DOHFW to support the program. 	<ul style="list-style-type: none"> An Environmental specialist with experience on BMW, and a Social Specialist with experience in stakeholder engagement to be placed in PMU to oversee the implementation environmental and social safeguard activities as per ESMF including periodic monitoring and reporting on E&S activities throughout the project life. Monitoring of BMW system in the facilities shall be an integral part of Quality Assurance and shall be a continuous activity at different 	<ul style="list-style-type: none"> Placement of Environmental specialist and Social Development Specialist in PMU. Percentage of facilities having improved bio medical waste score/index. (Percentage). The performance of the facilities on BMW shall be assessed through two criteria indices: i.e. Biomedical waste Management Index and Hand Hygiene 	PMU-DOHFW	Within Six months of project being effective

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<p>levels of health system functioning.</p> <ul style="list-style-type: none"> The Results framework intermediate indicator directly related to bio medical waste shall be “Percentage of facilities having improved bio medical waste score/index. (Percentage)”. The performance of the facilities on BMWW shall be assessed through two criteria indices: Biomedical waste Management Index and Hand Hygiene Index. 	Index.		
Development of Human Resource for health	<ul style="list-style-type: none"> Infrastructure improvement of government nursing schools for upgrading from GNM to BSc colleges may attract repair, renovation and/or retrofitting. However, the project does not support any large-scale construction and restricted to minor civil works within the existing 	<ul style="list-style-type: none"> Training need assessment (TNA) of HCF staffs on BMWW followed by training of HCF staffs on BMWW. HCF staff’s training and capacity building programs to include occupational health and safety measures, Covid19 specific measures, GRM, SEA/SH, and other such areas. Training on conducting Screening and applying the 	<ul style="list-style-type: none"> TNA conducted and informed training/ capacity development program for BMWW. Training modules and training calendar incorporates training on BMWW, OHS measures, and exposure visits to other states with good practices. 	PMU-DOHFW	<p>TNA in year-1 followed by annual training calendar over the project life</p> <p>Screening of sub-projects before construction</p>

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
	<p>footprint of the facilities, and hence no land acquisition or need for any additional land is anticipated.</p> <ul style="list-style-type: none"> Though adequate human resources and capacity building across the implementation chain will have positive E&S impact, provided they are sensitized with E&S issues and have capacity to apply mitigation measures as per ESMF. Most of the HCFs and Dire 	<p>mitigation measures to HCF in-charges by PMU E&S specialists.</p> <ul style="list-style-type: none"> Screening of sub-projects to avoid any land acquisition or involuntary resettlement and to rule-out any adverse impacts related to resettlement of squatters/ non-title holders. Safety norms as per GoI/ GoM to followed for any repair, renovation and/or retrofitting activities. 			
Strengthening procurement and supply chain management (PSM) system	<ul style="list-style-type: none"> No standard protocol for disposal of expired medicines. Mercury based equipment are still in use in the HCFs and needed to be phased out as per GoI guidance emerging from being Minamata Convention signatory - 	<ul style="list-style-type: none"> SOP to be prepared for notification and disposal of expired medicine. SOP / guidelines to be prepared for purchase of environmentally safe chemicals and equipment. All mercury based equipment will be phased out overtime with making a beginning by ensuring 	<ul style="list-style-type: none"> SOP in place for phasing out mercury based equipments. No mercury-based equipment procured. 	PMU-DOHFW	<p>SOP within six month from project effectiveness.</p> <p>Annual monitoring during project implementation</p>

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
	which makes it mandatory for the signatory countries.	any new procurement will not have any mercury based equipment.			
Strengthening of Biomedical waste management system	<ul style="list-style-type: none"> Inadequate biomedical waste management capacity. Given if waste streams (chemical reagents, wastewater effluents) are not adequately treated or disposed, there could be impacts/ contamination to surrounding soil, water and air environments and on nearby communities. Also, there is potential long-term risk could be associated with poor operations and maintenance of waste treatment and disposal technology. 	<u>On Improving BMWM</u> <ul style="list-style-type: none"> Waste characterization exercise covering identification of types and quantities of different wastes generated during healthcare activities in the health facilities to be conducted at the initiation of implementation. Building capacity of HCF staffs on bio-medical waste management – both solid and liquid waste. All waste streams (solid and liquid waste will be managed in accordance with the principles of the biomedical waste management rules, 2016 (amended 2018), and their implementation guidelines. SOPs for management of e-waste, plastics, pharmaceuticals, and 	<ul style="list-style-type: none"> Waste Characterization study conducted covering different types of HCFs and inform measures required to plug gaps. Formation status of State and District Advisory Committee for the management of BMWM. Inventory level of functional BMWM equipments and resource material at HCF Filing of necessary reports by HCFs in due format as per BMWM rule 2016. Occupational health and safety provisions at HCFs and their implementation e.g. PEP availability, immunization status of 	PMU-DOHFW/ HCF	<p>Waste Characterization Study completed within 6 months of project being effective.</p> <p>Year-1 for strengthening measures.</p> <p>Continue throughout the project life</p>

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<p>hazardous waste (x-ray developer) in accordance to the relevant rules to be developed and implemented.</p> <ul style="list-style-type: none"> • SoP for notification and disposal of expired medicines and other hazardous chemicals so that it is not disposed in regular solid and liquid waste streams. • Checklist and SOP for infection control measures to be developed. • Health and safety requirements to be included in the service contract of various service providers e.g. sanitation services, bio-medical services, and laboratory services etc. • Effluent Treatment Plants (ETP) should be provided to treat the washing and other wastewater generated from larger health facilities. • For smaller health facilities, wastewater from key generating areas shall be 	<p>health functionaries etc.</p> <ul style="list-style-type: none"> • Incidents and accidents monitoring reports filed regularly. 		

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<p>neutralized and / disinfected near the source and discharged externally in safe manner.</p> <ul style="list-style-type: none"> • Provisions e.g. septic tank for safe treatment and disposal of sewage from health facilities to be developed in areas where sewerage system is lacking. • No-run-off from site should allow to get into rivers/ water streams or accumulate at site or nearby areas without confirming to safe standards of discharges, as per BMW Rules, 2016. • To ensure compliance and facilitate the implementation of the regulation on Bio-Medical Waste Management Rules, the following mitigation actions should be in place: <ul style="list-style-type: none"> a. Labeling of waste containers as per specifications. Segregation of wastes near to their source of 			

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<p>generation, transportation to designated storage area within the facility.</p> <p>b. The requirements for transfer and reporting of medical wastes within the HCF and between the disposal center.</p> <p>c. Emergency mitigation measures for accidents/ leakages/ spills and release of medical waste</p> <p>d. Protection/OHS for workers during the sorting, collection, transportation and temporary storage.</p> <p>e. Where facilities are too remote and not viable to be connected to CBMWTF, decentralized systems such as deep burial pit will be constructed on site.</p> <p>f. In all health facilities, segregation of liquid chemical wastes at the</p>			

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<p>source, pretreatment and neutralization before mixing with other effluents from the facilities will be carried out, as per BMWM Rules.</p> <p>g. For larger facilities, ETP will be established in DH. For smaller facilities with no sewerage connection, suitable arrangements such as liquid disinfection, septic tank and soak pit will be introduced.</p> <ul style="list-style-type: none"> The project will also provide capacity building support to ensure occupational safety measures are followed by healthcare staff in facilities. For further details refer Annex-V 			
Bio-medical waste management, during COVID-	<ul style="list-style-type: none"> Risk of mixing of Covid-19 biomedical waste with other medical and general waste 	<ul style="list-style-type: none"> Follow WHO and MOHFW guidance in management of Covid-19 waste. 	Audits reports of sample facilities for adherence to the Covid-19 guidelines.	PMU-DOHFW/ HCF	With immediate effect during Covid-19 pandemic time

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
19 situation					
Management of other wastes from health facilities	<ul style="list-style-type: none"> Health facilities in the process of healthcare delivery generate large amount of plastics, electronic wastes, used batteries and general waste e.g. paper, food leftovers etc. Plastic is able to persist for long in the environment and poses risks to the environment, as well as uses up nature's petroleum resources during its production. Electronic wastes generated from use of computers, mobiles, monitors etc in the facilities also consume natural resources e.g. petroleum-based 	<ul style="list-style-type: none"> Waste characterization study shall be conducted at the beginning of project implementation, to identify such wastes along with the BMW and an estimate of their quantities generated on an average basis. The requirements under specific applicable regulations for the wastes shall be identified and procedures for their handling, treatment and disposal shall be developed, to comply with the rules. SOPs for management of e-waste, plastics, pharmaceuticals, and hazardous waste (x-ray developer etc) to be developed and implemented in accordance to the relevant rules SoP for notification and disposal of expired medicines and other 	<ul style="list-style-type: none"> SOPs developed and adopted by PMU/DOHFW for (a) plastic waste, (b) e-waste, (c) disposal of expired medicines, (d) phasing out of Mercury based equipments, and (e) purchase of environmentally safe chemicals. Number of facilities with arrangements for recycling of wastes e.g. plastics, e-waste and batteries waste etc. 	PMU-DOHFW/ HCF	<p>SOPs to be developed within 6 months of project effectiveness.</p> <p>Year-1 for strengthening measures.</p> <p>Continue throughout the project life</p>

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
	<p>plastic, metals etc. and pose occupational health and safety risks during dismantling activities and environmental pollution.</p> <ul style="list-style-type: none"> • Used lead-acid batteries pose serious occupational health and safety risks during their dismantling and environmental risks due to contamination of soil and water etc. • General waste e.g. paper and plant items e.g. dry leaves, leftover food waste etc. poses risk of multiplying the infectious risks in case such wastes are mixed with biomedical wastes in the health facilities and in their 	<p>hazardous chemicals so that it is not disposed in regular solid and liquid waste streams.</p> <ul style="list-style-type: none"> • SoP for purchase of Mercury free equipment e.g. B.P. apparatus, thermometers, dental amalgams, batteries, etc. • SoP for purchase of environmentally safe material and chemicals to be developed and implemented. • Protocol for handling and disposal of plastic wastes to approved recycles, approved by Mizoram Pollution Control Board (MPCB) to be developed and implemented in accordance with Plastic Wastes • Protocol for safe disposal of e-wastes to be developed in consultation with MPCB, as per e-Wastes rules. • 			

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
	surroundings.				
Improving coverage and strengthening institutional capacity of the Megha Health Insurance Scheme (MHIS)	<ul style="list-style-type: none"> Inadequate institutional mechanism to access the scheme by marginalized and vulnerable population and lack of awareness may lead to poor utilization of the scheme 	<ul style="list-style-type: none"> The SBCC strategy for the project to incorporate communication on mechanism to access and take benefit of the MHIS by eligible population including marginalized and vulnerable population. 	SBCC strategy and action plan has specific strategy to address MHIS	PMU-DOHFW/ HCF	Within 6 months of project effectiveness
Addressing access to services for the poor, vulnerable and marginalized social groups	<ul style="list-style-type: none"> Risk of inadequate access to healthcare services for people below poverty and in remote locations Lack of accessibility for persons with special needs in existing healthcare facilities 	<ul style="list-style-type: none"> Health care providers sensitized towards services to poor and vulnerable including providing psychosocial support where needed All healthcare facilities to be compliant with universal access provisions through retrofitting. Mechanism for provision of health services in an inclusive manner that addresses the differential needs of the vulnerable population including risk of receiving a disparity on the basis of financial or social 	<ul style="list-style-type: none"> Universal access provisions are put in place in project HCFs for differentially abled people. HCF staffs sensitized on provision of inclusive services as part of training and capacity building measures. 	PMU-DOHFW/ HCF	Throughout project implementation

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		characteristics such as age, race, gender, ethnicity, sexual orientation, spirituality, disability, or socioeconomic or insurance status. Also, wherever possible linkages with other government departments and schemes to be done to address the differential needs of the vulnerable groups.			
Improvements in the delivery and quality of health services at District hospital, CHC and PHC. Including Quality certification (NQAS).	<ul style="list-style-type: none"> Overall, the activities will have positive environmental and social impact by improving the quality of basic infrastructure facilities in HCFs. Quality certification process involves improving the BMWM and other environmental hygiene, so it will be beneficial. The project does not support any large-scale construction and restricted to minor repair and renovations within 	<ul style="list-style-type: none"> Set up mechanism for building and sustaining BMW management, sanitation and hygiene standards. SOP to be prepared for upkeep and O&M of equipment installed and related OHS practices. Screening to be done for infrastructure upgradation of HCFs/ other project facilities e.g. Nursing school/ college to avoid any land acquisition or involuntary resettlement. Screening will also be conducted to rule-out any adverse impacts related to resettlement of squatters and 	<ul style="list-style-type: none"> Screening as per Annex-1 is conducted prior to any civil work in HCF undergoing for NQAS certification. SOP prepared and adopted for ensuring O&M of equipments and hygiene standards along with BMWM. 	PMU-DOHFW/ HCF	As per quality improvement plan

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
	the existing footprint of the facilities, and hence no land acquisition or need for any additional land is anticipated.	non-title holders.			
Pollution management during repair, renovation and retrofitting	<ul style="list-style-type: none"> Risk of pollution from civil works including construction solid waste, dust, wastewater, noise, lubricants and oils, air emissions from diesel generators 	<ul style="list-style-type: none"> Use screens or nets to avoid flying debris and dust and use of regular water sprays to suppress dust Hazardous waste separated from nonhazardous waste on site and disposed off to designated sites Measure and report noise (decibel) levels regularly Manage oil leaks/spills from diesel generators and machineries ESMP for each construction activity to be prepared separately as highlighted by E&S screening. 	Civil work follows the norms and standards as per the guidance in Table (17) for different stages of construction.	Contractor, HCF	During construction
Labor management for repair, renovation and retrofitting	Though no labor influx anticipated given the small scale of civil work and that too in dispersed locations. Key labor related concerns	<ul style="list-style-type: none"> Adequate hand washing and sanitization facilities provided during construction. Consider ways to 	<ul style="list-style-type: none"> Contractors and labor are sensitized with Covid19 guidance. Contract management should have section and 	Contractor, HCF	During construction

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
activities especially during Covid-19 situation	<p>especially in Covid-19 situation will include:</p> <ul style="list-style-type: none"> • Workers coming from Covid-19 infected areas • Co-workers becoming infected • Workers introducing infection into community/general public • Arrangements for employment and accommodation of workers to be engaged in project activities, and issues relating to working conditions (including in relation to periods of sickness and quarantine), particularly if these are impacted by emergency legislation • Involvement of child labor and/or forced labor 	<p>minimize/control movement in and out of construction areas/site.</p> <ul style="list-style-type: none"> • If workers are accommodated on site, require them to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract • Implement procedures to confirm workers are fit for work before they start work, paying special to workers with underlying health issues or who may be otherwise at risk • Check and record temperatures of workers and other people entering the construction area/site or require self-reporting prior to or on entering • Provide daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures. 	<p>indicators related to labor management and additional norms during Covid19 situation.</p>		

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<ul style="list-style-type: none"> • Require workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor if they have symptoms or are feeling unwell • Prevent a worker from an affected area or who has been in contact with an infected person from entering the construction area/site for 14 days • Sensitization construction workers and health care staffs involved • No child labor or forced labor is allowed to work as per the GoI norms and legislation. • Setting up gender-sensitive infrastructure such as segregated toilets and well-lit living areas/ camps (if any). • Ensuring safety of women from any sexual exploitation and abuse (SEA) and sexual harassment (SH), sensitizing health care staffs on SEA/ SH, and mechanism to access 			

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<p>redressal services including building linkages to One-stop center (where available).</p> <ul style="list-style-type: none"> Follow Labor Management Plan 			
Occupational Health & Safety (OHS) and Community Health & Safety	<ul style="list-style-type: none"> Health and safety risks to construction workers and others Sanitary related problem 	<ul style="list-style-type: none"> The contractor (in cases of civil works) shall prepare a site-specific Action Plan for managing construction related workplace occupational health and safety, community health and safety risks and those associated with Covid-19 infections. Provide relevant PPE to all workers with onsite toilet and washing facilities Cordon off areas under construction and provide signage to warn of ongoing construction works Plan and implement awareness sessions for workers and community on health and safety hazards and risks and their role in their management including their responsibilities 	<ul style="list-style-type: none"> Site specific action plan is prepared by contractors and reviewed and approved by PMU. Civil work follows the OHS norms and standards as set in the contract. 	Contractor, HCF	During construction

Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline
		<ul style="list-style-type: none"> The guidance provided in the World Bank Guidance Note for borrowers on ESS4: Community health and safety, to be utilized 			
Pilot innovations in Health Wellness Centres (HWCs)	<ul style="list-style-type: none"> While women tend to access services geared towards maternal care and childcare, they often delay treatment seeking behaviour for diseases such as diabetes, hypertension, breast, cervical and oral cancers etc. This can be for a variety of reasons including well-documented time-poverty, double burden of unpaid domestic work and often put the health of their children and male members of the family at a higher priority than their own health. 	<ul style="list-style-type: none"> Preparation of SBCC strategy shall address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HWCs. SOP to be prepared for upkeep and O&M of equipment installed and related OHS practices. 	<ul style="list-style-type: none"> Preparation of SBCC strategy shall also address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HCFs for the same. SOP for upkeep of O&M of equipment is prepared and adopted. 	PMU-DOHFW, HCF	Within 6 months of project effectiveness

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN					
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
Planning Phase					
1	General Site and Worker Safety	Notification and Worker Safety	<ul style="list-style-type: none"> i. The local communities/ public has been notified of the works through appropriate notification and/or at publicly accessible sites ii. All legally required and departmental permits (to include not limited to resource use, dumping, sanitary inspection permit have been acquired for construction and/or rehabilitation iii. All work will be carried out in a safe and disciplined manner designed to the site to minimize impacts on neighbouring residents and environment. iv. Workers' PPE will comply with international good practice (hardhats, as needed masks and safety glasses, harnesses and safety boots) v. Appropriate signposting of the sites will inform workers of key rules and regulations to follow. vi. Sanitation facilities shall be provided for all site workers. 	<p>Contractor responsibility at site;</p> <p>PMU to ensure relevant clauses being included in the contract document.</p>	Site level monitoring by HCF In-charge
2	Physical Cultural Properties	Historic sites	<ul style="list-style-type: none"> i. If the HCF is located very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from ASI/local authorities and address all construction activities in line with local and national legislation 	Screening will be conducted by the HCF In-charge.	By DMHO

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN					
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			ii. Ensure that chance finds provision is activated in case any artefact is encountered in excavation	DMHO/PMU to facilitate in getting the respective permissions	
Implementation phase					
3	General Rehabilitation and/ small civil works Activities	Air quality / Dust	<ul style="list-style-type: none"> i. Keep demolition debris in controlled area and spray with water mist to reduce debris dust ii. Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site iii. Keep surrounding environment (sidewalks, roads) free of debris to minimize dust iv. There will be no open burning of construction / waste material at the site v. There will be no excessive idling of construction vehicles at sites 	<p>Contractor responsibility at site;</p> <p>PMU to ensure relevant clauses being included in the contract document</p>	HCF in charge/ Hospital Administrator and DMHO
4		Noise	<ul style="list-style-type: none"> i. Construction noise will be limited to restricted times agreed to in the permit. ii. During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible. iii. Materials such as sand, cement, or other fine particles should be kept properly covered. And moistened with sprays of water. iv. Unpaved, dusty roads should compact and then wet periodically. 	<p>Contractor responsibility at site;</p> <p>PMJU to ensure relevant clauses being included in the contract document</p>	HCF in charge/ Hospital Administrator and DMHO
5		Drainage	<ul style="list-style-type: none"> i. The worksite site will establish appropriate erosion and sediment control measures to prevent sediment from moving off site and causing excessive 	Contractor responsibility at site;	HCF in charge/ Hospital Administrator and

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN

S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			<ul style="list-style-type: none"> turbidity in nearby streams and rivers. ii. Keep all drains clear of silt and debris 	PMU to ensure relevant clauses being included in the contract document	DMHO
		Construction waste management	<ul style="list-style-type: none"> i. Waste collection and disposal pathways and sites will be identified for all major waste types expected from works activities. ii. wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. iii. Construction waste will be collected and disposed properly by licensed collectors 	<p>Contractor responsibility at site;</p> <p>PMU to ensure relevant clauses being included in the contract document</p>	HCF in charge/ Hospital Administrator and DMHO
6	Toxic Materials	Toxic / hazardous waste management	<ul style="list-style-type: none"> i. There will be no waste dumping in adjacent areas to the HCF. ii. Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information iii. The containers of hazardous substances should be placed in leak-proof container to prevent spillage and leaching. iv. The wastes are transported by specially licensed carriers and disposed in a licensed facility v. Paints with toxic ingredients or solvents or lead-based paints will not be used 	HCF in charge/ Hospital Administrator	DMHO and PMU
7		Asbestos Management	<ul style="list-style-type: none"> i. If asbestos is located on the project site, the following provisions will apply ii. Mark clearly as hazardous material 	HCF in charge/ Hospital	DMHO and PMU

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN

S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			iii. When possible, the asbestos will be appropriately contained and sealed to minimize exposure. iv. The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust. Asbestos will be handled and disposed by skilled and experienced professionals v. If waste asbestos material is to be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately vi. The removed asbestos will not be reused and will follow the IS 11768 (1986) Recommendations for disposal of asbestos waste material and CPCB Hazardous waste rules, 2016 (amended 2018).	Administrator	
Operations Phase					
8	Disposal of Bio-medical Waste		i. In compliance with national regulations the rehabilitated health care facilities should include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: a. Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal: <ul style="list-style-type: none"> • Clinical waste: yellow bags and containers • Sharps – Special puncture resistant containers/boxes • Domestic waste (non-organic): black bags and containers b. Appropriate storage facilities for medical	HCF in charge/ Hospital Administrator at the facility level; DMHO and PMU for capacity building PMU for SOPs	DMHO and PMU

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN

S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			<p>waste are in place</p> <p>c. If the activity includes facility-based disposal, such as burial pits, the appropriate disposal options are in place and operational.</p> <p>ii. Develop SOPs for managing bio-medical and other wastes within healthcare facilities (HCF) to ensure the proper standard operating procedures based on the NQAS accreditation standards are followed and implemented.</p> <p>iii. Build capacity of healthcare workers to manage medical facilities and ensure good technical support in implementing effective waste management system.</p>		
9	Wastewater Treatment Systems	Water Quality	<p>i. The approach to handling wastewater from larger HCFs (installation or reconstruction) must be approved by a qualified engineer.</p> <p>ii. Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines/ WBG guidelines on effluent quality and wastewater treatment</p> <p>iii. Monitoring of new wastewater systems (before/after) will be carried out.</p>	HCF in charge/ Hospital Administrator and DMHO	PMU
10	Community Health and Safety	Exposure to hazardous health care waste	<p>i. Avoid mixing general health care waste with hazardous health care waste to reduce disposal costs;</p> <p>ii. Segregate waste containing mercury for special disposal Management of mercury containing products and associated waste should be conducted as per the CPCB guidelines.</p>	HCF in charge/ Hospital Administrator	DMHO and PMU

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN

S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			<ul style="list-style-type: none"> iii. Segregate waste with a high content of heavy metals (e.g. arsenic, lead) to avoid entry into wastewater streams iv. Transport waste to storage areas on designated trolleys /carts, which should be cleaned and disinfected regularly v. Separate residual chemicals from containers and remove to leak-proof containers resistant to chemical corrosion effects. Return unused chemicals to supplier vi. Facilities should have permits for disposal of general chemical waste (e.g. sugars, amino acids, salts) to sewer systems. vii. Larger quantities of chemical wastes are to be transported to appropriate facilities for disposal, and not be encapsulated or landfilled. viii. Aerosol cans and other gas containers should be segregated to avoid disposal via incineration and related explosion hazard. ix. HCFs should have impermeable floor with drainage and designed for cleaning / disinfection. x. Treatment Facilities receiving hazardous health care waste should have all applicable permits and capacity to handle specific types of health care waste. 		
11	Worker Health and Safety		<ul style="list-style-type: none"> i. Development of Facility policies, procedures and protocols (including SOPs), and awareness on infection control policies, supervision and management ii. Trainings should be provided to all healthcare and sanitation workers on use of PPE, handling of 	Safeguard Consultant at PMU	PMU

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN

S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			<p>infectious materials and wastes (e. g. blood).</p> <p>iii. The NQAS accreditation process support implementation of the IMEP guidelines, project will ensure the standardization of necessary procedures and protocols (SOPs) will be carried out to safeguard the workers in the facility.</p>		
12	Management hygiene within HCF		<p>i. Hygiene promotion is important for health care workers and patients. They should be given constant reminders and information of the importance of infection control such as handwashing points.</p> <p>ii. Toilets should be cleaned whenever they are dirty, and at least twice per day, with a disinfectant used on all exposed surfaces.</p> <p>iii. Water points, with soap and adequate drainage, should be provided for all toilets, and their use should be actively encouraged</p> <p>iv. Toilets should be designed, built and maintained so that they are hygienic and acceptable to use and do not become centres for disease transmission. This includes measures control fly and mosquito breeding, and a regularly monitored cleaning schedule.</p> <p>v. Posters and other visual information should be used to promote infection control among healthcare workers and patients.</p>	HCH in charge	DMHO
13	Management of Labor for civil work		<p>i. Adequate hand washing and sanitization facilities at the construction site.</p> <p>ii. Consider ways to minimize/control movement in and out of construction areas/site.</p> <p>iii. If workers are accommodated on site, require them</p>		

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN

S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			<p>to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract</p> <p>iv. Implement procedures to confirm workers are fit for work before they start work, paying special to workers with underlying health issues or who may be otherwise at risk especially during Covid-19 situation</p> <p>v. Check and record temperatures of workers and other people entering the construction area/site or require self-reporting prior to or on entering</p> <p>vi. Provide daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures.</p> <p>vii. Require workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor if they have symptoms or are feeling unwell.</p> <p>iii. Prevent a worker from an affected area or who has been in contact with an infected person from entering the construction area/site for 14 days</p> <p>ix. Sensitization construction workers and health care staffs involved.</p> <p>x. No child labor or forced labor is allowed to work as per the GoI norms and legislation.</p> <p>xi. Setting up gender-sensitive infrastructure such as segregated toilets and well-lit living areas/ camps (if any).</p> <p>xii. Ensuring safety of women from any sexual exploitation and abuse (SEA) and sexual harassment (SH), sensitizing health care staffs on</p>		

TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN					
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING
			SEA/ SH. xiii. Follow Labor Management Plan		

6.1 Negative List of Activities under the Project

~~1-~~ Project will not support activities that ~~are with~~involve high or substantial E&S risks and ~~will~~ involve:

- ~~2-1.~~ Any land acquisition and/or involuntary resettlement including resettlement or eviction of squatters/ non-titleholders
- ~~3-2.~~ Use of child labor and/or forced labor
- ~~4-3.~~ Any adverse impact to any physical and/or cultural resources
- ~~5-4.~~ Any risk/ impact/ disturbance to forests and/ or protected areas e.g. sanctuaries, notified wetland, or any eco-sensitive area because of subproject activities
- ~~6-5.~~ Activities requiring diversion of forest land to non-forestry purposes (or infringement in eco-sensitive areas)
- ~~7-6.~~ Any construction within 200 meters of cultural, historic, religious site/ buildings designated as Archaeological sites
- ~~8-7.~~ Any territorial dispute between two countries in the subproject area and its ancillary aspects and related activities
- ~~9-8.~~ If subproject and related activities involve the use or potential pollution of, or be located in international waterways

Formatted: Font:

Formatted: Normal, No bullets or numbering

Formatted: Font:

7 FRAMEWORK PROCEDURES FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT

This chapter contains a summary of the screening procedure, capacity building activities, ESMP and implementation budget. It also provides necessary procedures and tools for screening and assessing environmental and social impacts. The environmental and social assessments need to be carried out based on the provisions of the National/ State laws and the relevant World Bank's Environmental and Social Standards and to be followed by the project through PMU and any hired contractors including those for civil works. The bid documents for any supply of goods or services, as well as for civil work shall also include the relevant documentation on this aspect as required by the nature of work to be procured. The Bio-medical waste management plan as mentioned in ESMP and Annex-V, the labor management procedure (as per Annex-II), and the stakeholder engagement plan specifies the key action that the PMU and the contractors need to follow during implementation. Any high-risk activities as mentioned under the prohibited list of activities (as per section 6.1) is not supported by the project. The Environment and Social Management Framework Procedure specifies measures for addressing the adverse risks and impacts and for enhancing the positive impacts. In addition, organisational capacity and training requirements, required to check and ensure effectiveness of the plan throughout the lifecycle of the project, have also been discussed.

7.1 Environmental and Social Management procedures

The overall environmental and social management procedure is shown in the figure below. After a sub-project has been developed with outline design and location/alignment options, screening of environmental and social risks can be done. This will help in the preparation of E&S instruments such as ESIA and ESMP. The recommendations from these E&S documents need to be incorporated by the detailed design team and also incorporated into the tender (bidding) documents. After selection of the contractor(s), site preparation activities will commence and at the same time ESMP implementation will begin. This will involve carrying out the proposed mitigation measures, monitoring and reporting activities for the sub-project.

Figure 4: Environmental and Social Management procedure

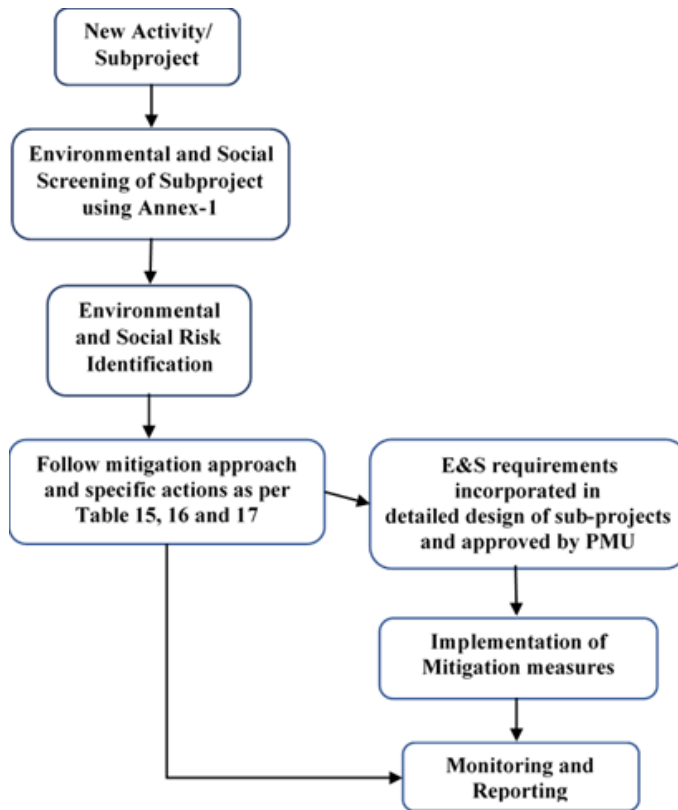


Table (18): Procedures to Address Environmental and Social Issues

Identified Activity	Procedure	Responsibility
Any new activity for infrastructure improvement/ sub-project	Screen for potential E&S risks and impacts and classifying each subproject according to risk (Annex 1, Screening Form) Any activity categorized as High or Substantial is ineligible for the project.	HCF In-charge MO/ District Medical and Health Officer (DMHO) at the District level
Consultation and Disclosure	All E&S plans and instruments will be consulted with relevant stakeholders including the HCF – Rogi Kalyan Samiti (RKS) periodically and disclosed whenever a new update is available. All consultation will follow the Stakeholder Engagement Plan (SEP) for the project.	HCF In-charge MO/ District Medical and Health Officer (DMHO) at the District level

Management of Staffs and workers	All E&S plans involving management of health care facility staffs and/ or construction workers will follow the Labor Management Plan (LMP) for the project.	HCF In-charge MO/ DMHO at the District level
Review and approval of E&S plans and instruments	All E&S plans and instruments will be approved by the PMU-DOHFW prior to disclosure	Project Director, Environmental and social specialist at PMU
Implementation and monitoring of mitigation measures in ESMF	All mitigation action will be monitored, documented and reported to the PMU World Bank to monitor during regular Implementation Support Missions	DMHO at the District level/ Environmental and social specialist at PMU

Given the incremental increase in BMW is dependent on increase patient footfall, which is further dependent of many factors including infrastructure upgradation of HCFs, capacity enhancement of HCF staffs, and SBCC to mobilise community, and hence not expected to happen before the first two years of the project. This is expected once the HCFs gets upgraded infrastructure as per quality enhancement plan which will be prepared for each of the target HCF during first 6-12 months of the implementation at the earliest, and following which the procurement process will start for civil work and leading to actual infrastructure upgradation. The patient footfall will also be impacted with other activities along with infrastructure upgradation such as enhanced capacity of HCF staffs. With the range of activities to commence before any change in increased patient footfall, and hence incremental increase in bio-medical waste, it will take at least the first two years of implementation. Along with HCF infrastructure upgradation, infrastructure for BMWM will also be assessed and will be part of the quality enhancement plan for upgradation. Similarly, the BMWM related capacity building will also be part of the overall capacity building plan. The overall upgradation of BMWM system is timely scheduled and in line with any expected increase of bio-medical waste. In the meantime, the existing BMWM practices with recommended onsite disposal methods using deep burial pits for infectious wastes, sharp pits for sharp wastes, and disinfection of liquid waste before being released in the drain/ soak-pits will be followed which are in line with national guidelines and regulations.

7.2 Sub-project Screening and Categorization

The proposed project will have subprojects mainly related to HCF upgradation or upgradation of Nursing school by repair, renovation and/or retrofitting to improve basic infrastructure of the facility for quality services. All sub-projects will require screening, which will be conducted by the HCF in-charge under the guidance of District Medical and Health Officer (DMHO), before submission to PMU. The environmental and social assessment will commence with the Environmental and Social Screening of proposed interventions. Screening formats are given in Annex 1. Though, the given scale of subproject activities is expected to be low to moderate as these subprojects potentially have limited or minimal adverse social or environmental risks or/and impacts that are generally site-specific, largely reversible and can be managed locally using environmental and social mitigation plan, however, for the purposes of complete understanding, the rationale for risk rating is as below.

The outcome of the screening process is to also categorize the sub-project in terms of its environmental and social risks. Below is the key consideration for risk rating.

- **High Risk:** Projects with potential significant adverse social or environmental risks or/and impacts that are diverse, irreversible or unprecedented.
- **Substantial Risk:** Projects with potential moderate adverse social or environmental risks and/or impacts that are moderate in number, mostly irreversible and possible addressed through mitigation measures.
- **Moderate Risk:** Projects with potential limited adverse social or environmental risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures.
- **Low Risk:** Projects with minimal or no adverse social or environmental risks and/or impacts.

7.3 Sub-project Implementation, Monitoring and Reporting

Based on screening and following ESMP (Table 15 and Table 16), the sub-project will prepare a site specific ESMP in consultation with key HCF health committee and HCF management and share with PMU for approval. All E&S plans and instruments will be consulted with relevant stakeholders periodically and disclosed whenever a new update is available. Once the site specific ESMP is approved, it will be followed for implementation. All E&S plans involving management of health care facility staffs and/ or construction workers will follow the Labor Management Plan (LMP) for the project (Annex-II). The site specific ESMP will be prepared by HCF in-charge under the guidance of E&S specialist(s) at the PMU. The HCF In-charge will monitor the site specific ESMP implementation and report on monthly basis to PMU. In addition, the sub-project will follow the norms and reporting as applied under the national/ state laws and guidance.

8 STAKEHOLDER ENGAGEMENT AND GRIEVANCE REDRESS MECHANISM

8.1 Key Stakeholders

Three types of key stakeholders identified under the project and includes (1) Affected parties – such as the DOHFW and its Directorates, target HCFs and HCF staffs, other support workers engaged in target HCFs including those handling waste, and beneficiary community of the target HCFs; (2) Interested parties – are those who have some interest in the project such as Elected representatives, other line departments and agencies, ADCs, and public at large, and (3) Vulnerable groups – who may get disproportionately impacted and who often do not have a voice to express their concerns or understand the impacts of the project. These are further detailed out in the Stakeholder Engagement Plan (SEP) prepared for the project.

8.2 Stakeholder Consultation During Preparation

To inform project design, different consultation meetings and discussions were conducted with key officials in DoFHW and with other stakeholders including Meghalaya State pollution control board, Social Welfare and Tribal Development Department, Women and Child Development Department, Education Department, all three Autonomous development Councils (Khasi Hills ADC, Garo Hills ADC, Jaintia Hills ADC), and Shillong Municipal Corporation in a virtual manner. In addition, consultation happened with a sample of doctors at District hospitals, CHCs and PHCs; NGOs and community representatives such as village headman. The key issues and concerns, and suggestions voiced during the consultation is as below.

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation

Stakeholder Group	Key Issues and Concern	Key Suggestions Received
Meghalaya State Pollution Control Board; Shillong Municipal Board; Jowai Municipal Board	<ul style="list-style-type: none"> • Absence of Common Bio Medical Treatment Facility. • Intermittent monitoring of BMW of HCFs in all districts. And delayed reporting by the HCFs. Also, updates are inconsistent. Most BMW are not disposed as per the BMW Rules 2016 (amended 2018). • There is a lack of efficient human resource and technical support in maintenance of BMW equipment. • Lack of trained/sensitised municipal workers (BMW rules, environment protection) 	<ul style="list-style-type: none"> • Common treatment facility is an urgent need in various districts and shall be explored. • HCF should have a designated person for BMW management, monitoring and reporting. • HCFs capacity to be built on in-depth understanding of BMW Rules 2016 (amendment 2018) to comply with the requirements • Support Municipal workers in terms of capacity building, information sharing/ refresher trainings etc.

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation		
Stakeholder Group	Key Issues and Concern	Key Suggestions Received
Private Waste Collector – <i>(The Meghalaya Disposal and Waste Management Society – A Private Waste collector approved by MSPCB, and Health Dept for collecting medical waste – mainly red bags)</i>	<ul style="list-style-type: none"> Waste load is too less for daily collection, and HCFs in remote areas have to wait for few weeks for waste to be collected to a weight that is heavy enough for the expenses spend on transport etc. No standard fee for transport expenses and for disposal. In absence of CTF, waste has to be transport to Assam where a private firm receives and dispose in its own plant. Lack of Waste segregation during collection from HCFs. 	<ul style="list-style-type: none"> Other medical waste can also be added to reduce the storage time by the HCFs. MoU should have a fixed rate Cost of transport will be reduced if the State has its own treatment plant/recycling plant. Need to ensure that waste is not mixed.
Meghalaya Medical Services Association	<ul style="list-style-type: none"> IPHS norms are compromised in terms of human Resource, which impacts quality of services Medical personnel serving in difficult areas do not receive any incentives or additional support Quality assurance is hardly done at HCF level There are HCFs that are neglected for an extensive period of time. There are well performing HCFs that continue to receive same funding (limited scope for innovation and expansion) 	<ul style="list-style-type: none"> IPHS norms need to be understood and uniformly applied Diagnostic equipment/ services required in remote HCFs. HCFs in rural areas - DHs, CHCs, should be equipped with screening/ testing equipment for diagnosis and treatment. Living quarters have to be upgraded if Medical Officers and HCF staff have to perform efficiently.
Health Care Facilities - District Hospitals, CHCs, PHCs and UHCs.	<ul style="list-style-type: none"> Lack of transparency in percolation of funds from State to Districts and HCFs, resulting in a lack of accountability of HCFs if performance is low Many HCF buildings (especially the remote PHCs) are constantly facing problems of roof leakages and dilapidated windows, doors and floors. Leakages are so common, that HCFs in remote areas have become used to the seasonal 	<ul style="list-style-type: none"> Districts should be given more flexibility in managing projects, programmes through the HCFs. And utilisation reports to be submitted by HCFs. Basic infrastructure needs repair, renovation and upgradation including for living quarters and with decent power management in HCFs for improving services.

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation

Stakeholder Group	Key Issues and Concern	Key Suggestions Received
	<p>shifting or stopping of specific services for repair.</p> <ul style="list-style-type: none"> • HCF staff living in callous conditions during the rainy season, some are compelled to leave their living quarters resulting in the absence of 24x7 services. • There are no facilities for treatment of drinking water in many HCFs • Power supply is erratic and in bad condition leading to adverse impact on services to be provided – there have been instances when delivery has been conducted in torch lights • The electrical wiring in many HCFs are so old that computers/ printers/ Xerox machine encounters problems due to short-circuits. In many HCFs even earthing is not done. • Many villages under HCFs are not fully connected by roads to the facilities – especially in remote areas • Single ambulance in the HCFs especially in PHCs are not able to fulfil the transport needs of all patients. People have to hire private vehicle in their village to come to HCFs. Public transport is also non-existent in many of the remote areas throughout the day. • Phone and internet network connectivity is erratic in remote areas. Some HCFs in remote areas go for days without network connectivity, especially during bad weather. • Most of the CHCs do not have the complete set of Specialists as required. Lack of Anaesthesiologists in the State has also resulted in most CHCs inability to get their 	<ul style="list-style-type: none"> • Mechanism to be developed for additional ambulance/ resource for referral transport to support the HCF in transporting patients. Mapping of HCFs to be done for this and prioritized those which are in dire needs. • Filling human resource gaps is important to serve better. Also, in-service training system needs to be improved for health care providers. • Online data sharing/ documentation, indenting of medicines has been helpful to the HCFs which has reduce their travel time, however, they suffer due to bad network connectivity – any effort in improving network connection can hugely help in accessing the medicine in time and sending documentation and overall improving the quality of services. • Sub centres needs strengthening as being closure to community it can address issue of institutional deliveries. • RKS membership should be inclusive and requires capacity building in terms of understanding their role and responsibility and functioning of HCFs. • BMW management needs strengthening.

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation

Stakeholder Group	Key Issues and Concern	Key Suggestions Received
	<p>Operation Theatre functioning. Also, inadequate staffing poses challenge across the HCFs.</p> <ul style="list-style-type: none"> • The Rogi Kalyan Samitis (RKS) at the HCF level have become more significant as its roles and powers are increased. However, awareness about their role and in absence of any capacity building it remains non-functional and have not been able to support the HCF as desired. Also, RKS should have more participation from vulnerable population. • There is no established GRM in the Department that can connect the HCFs in addressing grievances. Also, most HCFs do not have an any Internal Complaints Committee to address sexual harassment in the workplace. • BMW in Urban Health Centres is extremely difficult since they are mostly located in rented locations, they are not allowed to construct sharp pits, soak pits, and deep burial pits. • Most CHCs and PHCs burn their BMW such as PPEs, gloves, and masks etc. Some PHCs bury the same in the deep burial pit. • Except in Shillong, where COVID waste is burnt in the Crematorium, majority of Covid care centre in rural areas burn the waste in municipal grounds/ sites away from the main residential area. 	
Rogi Kalyan Samiti (RKS) Members	<ul style="list-style-type: none"> • Chairperson of RKS being an Official of the State and is responsible for the Block Development activities, and is also chairing the RKS of other HCFs, hence, it is challenged 	<ul style="list-style-type: none"> • Include RKS members in planning, review/ update and project implementation meetings.

Stakeholder Group	Key Issues and Concern	Key Suggestions Received
(Bhaitbari PHC, Dangar PHC, Madan Maroid PHC)	<p>with time and s/he could barely attend the meetings or visit the RKS and the HCF regularly.</p> <ul style="list-style-type: none"> • Women members (mostly teachers and Anganwadi Workers) are generally present but are not so proactive given limited knowledge about their roles. • Awareness of HCF functioning is limited among RKS members as well as the role to be played by RKS for smooth and effective function of HCF. • RKS committees meet quarterly or biannually which is less compared to the challenges that the HCF encounters from time to time. 	<ul style="list-style-type: none"> • Role and responsibility of RKS need to be reviewed and members need to be made aware of the same.
CBOs/ NGOs (North East Network; Voluntary Health Association of Meghalaya; Grassroot; Jaintia Hills Development Society; Mih Myntdu Community and Social Awareness Association; Akhil Gandhian)	<ul style="list-style-type: none"> • Health Infrastructure is very poor especially in remote areas. In most HCFs in remote areas, laboratory, labour rooms, toilets are quite run-down and mostly non-functional. • Manpower is usually not present in the Health Facilities as required. • Institutional deliveries are less due to the inaccessibility of the people to reach the PHC/ CHC on time. • Cases of domestic or sexual violation remains under reported and women continue to have less seeking behaviour when it comes to their own personal health. rural men who earn on a daily wage basis are less likely to visit HCF, unless they are extremely ill and need hospitalisation. • At places, RKS can be political in nature (community political dynamics), there is less women participation in 	<ul style="list-style-type: none"> • Upgrade to adequate supply of basic amenities such as water, electricity, living quarters to be also upgraded and fit for habitation. • Community engagement to be enhanced- through public hearing and dialogues. • UHCs should be extended with more support in terms of space, resources for emergency, BMW management etc. • HCF staffs need to be oriented in gender concepts, gender-based violence and relevant issues related to gender. • Soft skills of HCF staffs to be enhanced through sensitising, training and capacity building specially to comfort rural patients.

Stakeholder Group	Key Issues and Concern	Key Suggestions Received
	these committees (women members who are present are usually silent).	<ul style="list-style-type: none"> • HCF activities to be assessed through local /village level committees in terms of building transparency and trust. • HCF committees such as RKS should be more inclusive and also include differentially abled persons.
Traditional Tribal Village Headmen	<ul style="list-style-type: none"> • Manpower in the HCF is lacking especially in CHCs. Also, the availability of human resource in HCFs is not at par with the number of patients. • The IEC used for programmes are so difficult to understand and tiresome to read. • Remote places, villages in hilly terrain/ slopes face extreme hurdles in getting to health facility. They mostly rely on traditional forms of medicine. • Though BMW are segregated at source; it is not properly monitored at disposal and HCF has no accountability even if it is not disposed properly. 	<ul style="list-style-type: none"> • Infrastructure and human resource in all HCFs require immediate attention. • Review of essential list of medicines from time to time. • IEC materials must be simple, easy to read, using local language and language that is friendly to women, children, adolescent, community etc. • Any health programmes that are coming to the village should involve committees from the planning stage. • HCF to be accountable for proper disposal of bio-medical waste.
Autonomous District Councils – (1) Khasi Hills ADC; (2) Jaintia Hills ADC; (3) Garo Hills ADC	<ul style="list-style-type: none"> • Substandard system of Bio medical waste management. • High incidence of early pregnancies and marriages in the communities, especially in the rural areas. • Traditional system of medicine is yet to be acknowledged and promoted in a sustained manner. 	<ul style="list-style-type: none"> • Common Bio-medical waste treatment facilities to be promoted. • Integrate the traditional systems of medicines into the larger health care delivery of the State by linking traditional practitioners with HCFs. • Mapping of Traditional Healers in the State so as to ensure that Traditional Practitioners who receive

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation

Stakeholder Group	Key Issues and Concern	Key Suggestions Received
		<p>certification are genuine and people who seek treatment from them are assured accountability.</p> <ul style="list-style-type: none"> • Adolescent health needs in-depth understanding and research and should result in implementation of a programme which is suitable to rural and tribal youth.
<p>Department of Social Welfare (Women and Child Development, Social Justice and Empowerment, Tribal Affairs and Minority Affairs)</p>	<ul style="list-style-type: none"> • Networking and linkage with HCFs other than the nearest HCF, yet to be established. 	<ul style="list-style-type: none"> • Training of HCF Staff on gender and gender-based violence needed. • Strengthening of Adolescents health programme to include psychosocial support and coping skills of young people.

8.3 Stakeholder Engagement Plan (SEP)

The Stakeholder Engagement Plan (SEP) prepared for the project aims to ensure consultations under the project to be carried out with stakeholders throughout the project cycle to inform them about the project, including their concerns, feedback and complaints about the project and any activities related to the project.

The Social specialist responsible for social safeguard in the PMU at DoHFW will be the nodal person to anchor the SEP implementation. This will involve engaging with health care providers, existing health and community-based networks, media, local NGOs, community groups, local government institutions using a consistent mechanism of communication. A large-scale community engagement strategy for social and behaviour change approaches will be undertaken as defined in the SBCC.

For stakeholder engagement relating to the specifics of the project and project activities, different modes of communication will be utilized. Policymakers and influencers will be reached through formal official communication, meetings/ workshops; with health care providers it will also use social media (such as WhatsApp, Facebook, Twitter etc) in addition to formal communication and meetings/ workshops; and for larger community and other stakeholders it will use mass media communication methods along with Text messages for mobile phones, hand-outs and brochures in community and health centres, community health boards, billboards etc.

8.4 Grievance Redress Mechanism

There is no dedicated grievance redress mechanism (GRM) in place for DoHFW. The existing grievance redress mechanism (GRM) in Meghalaya is:

Comment [UID1]:

1. Meghalaya Chief Minister's, WhatsApp platform for public grievance redress (using +91-9436394363 phone no.). People can submit their grievances directly to the Chief Minister's (CM) office using WhatsApp messages and it is monitored online (<http://megpgrams.gov.in/index.htm>). It is a step towards solving simple problems being faced by the people where people can anonymously send information or grievances. The Chief Minister office has a dedicated team to service the grievances including screening, forwarding to particular Department concerned for taking up necessary actions to address the problems.
2. Department of Personnel and Administrative Reforms (DP&AR), government of Meghalaya also have centralised public grievance redress mechanism whereby one can register their grievances online and track the same for its redressal at <http://megpgrams.gov.in/index.htm>. Grievances received by this online system is then screened and forwarded to respective department/ directorate/ agencies for addressing. The Meghalaya Public Grievance Redressal & Monitoring System (megPGRAMS) is a web based application which facilitates Department /Directorate /District Collectors to receive grievances lodged, forwarding to concerned department /directorate for redressal and promotes easy monitoring of grievances received online / offline or received through the call centre of the Meghalaya Integrated Information Services (MIIS - <http://mii.nic.in/>). The nodal officer is placed at the MIIS to screen the grievances and forward it to respective department/ directorate/ districts and other officials. The MIIS Citizen Help Desk has been created by the Government of Meghalaya to assist citizens in quickly and easily reporting a problem, requesting a service, asking a question or filing a complaint. A citizen can register his grievance by using any of the following modes: (a) Written Request: Submitting his/her Written Grievance application on paper at any of the DIPR offices located across the state; (b) Online Interface: Submitting the grievance application online using the web interface of the new Grievance Redressal System; (c) Calling Toll-Free Helpline: Citizen can also call a toll-free Grievance Redressal helpline to register his/her grievance with the department; (d) Grievance filed by email - Citizens can

email their grievances directly to the Public Grievance Officer(s) on a dedicated email id. This mail inbox will be monitored on a daily basis.

If citizens provide their mobile number while registering their grievance application, they can get an acknowledgment via SMS containing the Unique Registration Number of their Grievance. They can also check the status of their Grievance request by sending an SMS query containing the Unique Application number

However, it was felt necessary to establish a project level GRM keeping in mind that the GRM system shall become a dedicated GRM for DoHFW. This will be undertaken in the first six months of the project being effective, ~~-in the interim~~ Meanwhile the existing GRM system using megPGRAMS or CM's office WhatsApp platform will be used by all stakeholders including general public, project beneficiaries and health care staffs. The project GRM will be supported both by a traditional and technology-based approach, for early resolution of complaints. In addition, at the HCF construction sites, labor specific GRMs will be established and the details of the same is provided in Labor Management Procedure (LMP) (Ref. Annex-II). The detailed composition of the GRM and the processes to be followed by complainants have been elaborated in the SEP. Other social accountability measures such as patient satisfaction surveys, citizen scorecard/ report card or health committees scorecard/ report card will be used for acquiring feedback on performance and recording citizens' recommendations.

8.5 Process of Disclosure

A preliminary strategy for information disclosure is given in Table (178 below:

Project stage	Target stakeholders	List of information to be disclosed	Methods and timing proposed
Preparation of ESMF	Government entities; local communities; vulnerable groups; NGOs and academics; health workers; media representatives; health agencies; others	Project documents, ESMF, SEP, other relevant E&S documents, GRM procedure, regular updates on Project development	Dissemination at DOHFW website and World Bank website prior to appraisal
Preparation of Social and Behavior Change Communication (SBCC) strategy	Government entities; local communities; vulnerable groups; NGOs; health workers; media representatives; health agencies; others	Project documents, SBCC Strategy document	Dissemination at DoHFW website (within 6 months of project being effective)
During project implementation	Affected persons/ community, workers at construction sites, public health workers	SEP, relevant E&S documents; LMP, GRM procedure; regular updates on Project development	Public notices at HCF site; Consultation with affected community and vulnerable groups (As and when sub-project is initiated)
HCF Performance Audit Scores	Government entities; local communities; vulnerable groups; NGOs and academics; health workers;	Compiled performance audit scores of target HCFs	Dissemination at DOHFW website (Annual basis after the first

Table (20): Preliminary Strategy for Information Disclosure for the Project

Project stage	Target stakeholders	List of information to be disclosed	Methods and timing proposed
	media representatives; health agencies; others		performance audit)

9 INSTITUTIONAL ARRANGEMENTS, RESPONSIBILITIES AND CAPACITY BUILDING

9.1 Institutional Arrangement

The Department of Health and Family Welfare of Government of Meghalaya will be responsible for the implementation of the proposed project. The existing DoHFW governance and management structures and departments will be used for project implementation. The DoHFW will house the Project Management Unit (PMU) of the project. The Mission Director, National Health Mission (NHM) will be the Project Director and an Additional Director will be the Joint Project Director and will lead the Project Management Unit (PMU). The PMU will be responsible for the project implementation, including its regular monitoring and supervision. The PMU will have staffs deputed from all three health directorates. The PMU will have about 10 staff including for social safeguards and environmental safeguards specialists who will be responsible for overseeing the implementation of E&S activities, monitor and report to PMU on monthly/ quarterly manner at the state level.

At the health facility level, the Chief Medical Officer (CMO) will be responsible for environmental and social safeguard activities under the guidance of District Medical and Health Officer (DMHO) at the district level. The HCF will report on E&S activities to DMHO on monthly basis and DMHO office will compile the HCF wise E&S monitoring report and share with PMU on monthly/ quarterly basis.

9.2 Training and Capacity Building

The project will provide a range of training and capacity building support on managing environmental and social risks associated with the project. Several training and capacity building programs/ modules would be provided to HCF staffs, waste management workers and cleaners, as well as third-party waste management service providers (if any), including those involved in transporting the biomedical wastes. The training provided under NHM on biomedical waste management will continue and will be strengthened further. A training calendar will be developed for the project. Awareness and orientation on World Bank's ESF will also be provided. A list of potential training and capacity building efforts are given below.

- BMWM training to all healthcare workers across all HCF facilities in the state.
- Orientation training on implementing the various provisions of ESMF, including an introduction to the World Bank's ESF
- Training on OHS/Community Health and Safety, SEA/SH, Covid19 related measures, use of PPE etc. including for contractors and the labors/workers engaged with civil works

9.3 Indicative Budget

An indicative budget is prepared for implementing the ESMF. Mitigation actions to be deployed during civil work etc. will be part of the detailed project reports and their specific ESMPs.

S.No	Item	Estimate (USD)
1.	E&S Mitigation activities	800,000
2.	Human Resource and management	300,000
3.	E&S related capacity building	300,000
4.	Establishment of GRM mechanism	300,000
5.	Implementation of SEP	300,000

4.	Preparation of ESMPs*	
Total		2,000,000
Note: *Will be part of the sub-project detailed project report and budget		

ANNEXURES

ANNEX I: SUB-PROJECT SCREENING FORMAT FOR POTENTIAL ENVIRONMENTAL AND SOCIAL ISSUES

The Screening checklist is applicable to any civil work activities leading to repair, renovation, and expansion in the HCFs under the project. This form is to be used by health care facility in-charge (ANM/ MO/ MS as applicable) to rule out any adverse environment and social impacts due to program intervention under the guidance of the Project Management Unit (PMU) to screen for the potential environmental and social risks and impacts of a proposed subproject.

Name of the District	
Name of the Block/ Town	
Category of health care facility/ Laboratory	
Name of health care facility	

Sl.No.	Key Question	Answer		Risk Category	Due diligence/ Actions
		Yes	No		
1	Is there any risk/ impact/ disturbance to forests and/ or protected areas because of subproject activities?			High	If yes, any interventions should be avoided.
2	Is the health facility within 100 meters of any cultural, historic, religious site/ buildings?			High	If yes, any interventions should be avoided ¹⁶ .
3	Is the health facility between 100 - 200 meters of any cultural, historic, religious site/ buildings?			Substantial	If yes, due permission to be taken from ASI for any construction. Where there is no impact, chance finds procedures would be applicable and ASI norms would need to be followed.
4	Does the subproject involve additional land for upgradation/ expansion and/ or new construction through land acquisition or direct purchase and/or restrictions on land use?			High	If yes. It is not supported by the project. Alternate options to be explored.

¹⁶Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 there is ban on construction within 100 metres of a centrally protected monument and regulated construction within 100-200 metres construction. Any construction activity within 100-200 meters of the monument requires ASI permission.

Sl.No.	Key Question	Answer		Risk Category	Due diligence/ Actions
		Yes	No		
5	Does the subproject involve additional land for upgradation/ expansion through transfer from another government department?			Moderate	If yes. Follow government norms for transfer. Construction activities can be initiated only after transfer is completed.
6	Does the subproject require any informal/ illegal occupants' removal in case of any upgradation/ expansion in HCF			Substantial/ High (if numbers are large)	If yes, any interventions should be avoided. Alternative options to be explored. However, if completely unavoidable, approval from World Bank to be taken and necessary assessment and safeguard tools to be prepared as per ESS 5.
7	Does the subproject involve recruitment of workers ¹⁷ including direct, contracted, primary supply, and/or community workers?			Moderate	If yes, follow construction stage ESMP as per Table (17) of this report. Also, follow the Labor Management Procedure as per Annex-II.
8	Is there civil works/building rehabilitation envisaged at the facility? ¹⁸ <input type="checkbox"/> Increase in dust and noise from demolition and/or construction <input type="checkbox"/> Generation of construction waste <input type="checkbox"/> Impacts on accessibility to the facility <input type="checkbox"/> Excavation impacts and soil erosion <input type="checkbox"/> Increase sediment loads/wastewater discharges in receiving water <input type="checkbox"/> Removal and disposal of toxic and/or hazardous substances ¹⁹ <input type="checkbox"/> Increase in soil erosion or changes in local drainage pattern			Moderate	If yes, follow construction stage ESMP as per Table (17) of this report. Also, follow the Labor Management Procedure as per Annex-II.
9	Does the subproject have			Moderate	If no, follow ESMP as per Table (16)

¹⁷ Given the scale of operation in highly dispersed locations across the state to undertake any repair, renovation, and/or upgradation of HCF, it does not attract any large labor influx.

¹⁸ It is expected that the HCFs to be renovated/refurbished will pass the screening criteria with no problem and will be found suitable for improvements and any small civil works required. In such cases the standard mitigation measures would be all that is needed to minimize any risk of negative environmental and social impact. The generic Environmental and Social Management Plan (ESMP) of this ESMF would apply in these cases.

¹⁹ Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

Sl.No.	Key Question	Answer		Risk Category	Due diligence/ Actions
		Yes	No		
	appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)?				and 17) of this report.
10	Does the subproject have a GRM in place, to which all workers have access, designed to respond quickly and effectively?			Moderate	If no, follow ESMP as per Table (17) of this report
11	Does the subproject have had Free and Prior informed consultation with the Health Committee and/or larger beneficiary community, and have their consent towards it?			Moderate	If no. A free and prior informed consultation with Health Committee involving community members and/or with larger beneficiary community to inform them about the sub-project, its pros and cons, seek their suggestions and record their consent as part of site specific ESMP preparation. If, the consent is not in favour of the sub-project, avoid the sub-project.
12	Does the facility have an Individual wastewater treatment system?			Moderate	If yes, ensure that discharges into receiving waters meeting adequate water quality standards as prescribed by State pollution Control Board/ Central Pollution Control Board.
13	Is there adequate provision of clean water and sanitation services at the facility?			Moderate	If no, specify the mitigation measures to be adopted to provide adequate supplies of potable drinking water.
14	Is there adequate STP-ETP/ Soak Pit if facilities are not connected to the municipal wastewater scheme?			Moderate	If No, adequate wastewater treatment and disposal systems, such as package treatment plants and chlorination, where appropriate for the size, capacity, and services offered at the health facilities.
15	Is BMW being suitably segregated? (this includes clinical waste, sharps, pharmaceutical products, cytotoxic and hazardous chemical waste, radioactive waste, organic domestic waste, non-organic domestic waste)			Moderate	If No, then specify the on-site measures/ equipment needed for waste segregation and follow CPCB guidelines on (i) CPCB Implementation Guidelines for Management of Healthcare Waste in Health Care Facilities as per Bio Medical Waste Management Rules, 2016 (ii) Guidelines for Management of Healthcare Waste as per Biomedical Waste Management Rules, 2016

Sl.No.	Key Question	Answer		Risk Category	Due diligence/ Actions
		Yes	No		
					(iii) Guidelines for Bar Code System for Effective Management of Bio-medical Waste
16	Is the HCF connected to an offsite CBMWTF?			Moderate	If No, then specify the on-site measures for waste disposal.
17	Is all Biomedical equipment in good working condition?			Moderate	If no, specify how this will be mitigated.
18	Are appropriate colour coded Bins/ bags provided for bio-medical waste disposal?			Moderate	If no, specify how consumables will be provided at HCF level, and follow CPCB Guidelines for Bar Code System for Effective Management of Bio-medical Waste
19	Is there SOP to manage accidents/ spills at HCF level including mercury			Moderate	Develop SOP for accident management and systems for reporting and recording: <ul style="list-style-type: none"> i. Occupational accidents and diseases ii. Dangerous occurrences and incidents iii. These systems should enable workers to report immediately iv. Follow CPCB guidelines on management of mercury.²⁰
20	Are healthcare and sanitation workers provided with necessary and appropriate health screening, precautionary measures and immunizations?			Moderate	If no, ensure the following practices are implemented: <ul style="list-style-type: none"> i. Yearly health screening of all HCF and Sanitation staff ii. Immunization for staff members as necessary (e.g. vaccination for hepatitis B virus, tetanus) iii. Provisions of gloves, masks, and gowns iv. Adequate facilities for hand washing are available. If hand washing is not possible, appropriate antiseptic hand cleanser and clean cloths / antiseptic towelettes should be provided. v. Adequate procedures and facilities for handling dirty linen and contaminated clothing
21	Does the facility have appropriate fire safety Infrastructure and norms?			Moderate	If No, Fire safety recommendations applicable to occupational areas are presented under 'Occupational Health

²⁰http://cpcb.nic.in/uploads/hwmd/Guidelines_for_ESM_MercuryW_fromHCFs.pdf

Sl.No.	Key Question	Answer		Risk Category	Due diligence/ Actions
		Yes	No		
					and Safety' in the WBG General EHS Guidelines ²¹ Additional recommendations for fire safety include: i. Installation of smoke alarms and sprinkler systems ii. Maintenance of all fire safety systems in proper working order, including ventilation ducts, escape doors. iii. Training of staff for operation of fire extinguishers and evacuation procedures iv. Development of facility fire prevention or emergency response and evacuation plans with adequate guest information (this information should be displayed in HCF main locations and clearly written in relevant languages).
22	Is there any territorial dispute between two or more countries in the subproject and its ancillary aspects and related activities?			Substantial	<i>(Refer OP7.60 Projects in Disputed Areas)</i> Governments concerned agreement/ notification will apply.
23	Will the subproject and related activities involve the use or potential pollution of, or be located in international waterways ²² ?			Substantial	<i>(OP7.50 Projects on International Waterways)</i> Governments concerned agreement/ notification will apply.

In-charge of Health care facility (MS/ CMO/ MO/ ANM)

Name.....

Designation:

Phone No.

²¹<https://www.ifc.org/wps/wcm/connect/9aef2880488559a983acd36a6515bb18/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES>

²²International waterways include any river, canal, lake or similar body of water that forms a boundary between, or any river or surface water that flows through two or more states.

Signature

Date:

ANNEX-II: LABOR MANAGEMENT PROCEDURES (LMP)

A. OVERVIEW OF LABOR USE ON THE PROJECT

Type of Workers

1. The ESS2 (Labor and Working Conditions) categorizes workers into direct workers, contracted workers, community workers, and primary supply workers. However, only the two categories of workers are expected for this project i.e. Direct Workers and Contracted Workers.

2. **Direct Workers:** The project will be implemented by the Department of Health and Family Welfare (DOHFW), Government of Meghalaya (GoM). The project will be managed by the PMU housed within DOHFW. The PMU will have staff deputed from all three health directorates - (i) Directorate of Health Services, Medical Institutions, (ii) Directorate of Health Services, Maternal and Child Health and Family Welfare and, (iii) Directorate of Health Services, Research. Approximately 10 staff and consultants will be included in PMU. The PMU is assisted by a Technical Assistance provider to augment the PMU's capacity in administrative and technical areas.

3. Direct workers will comprise project staff hired by DOHFW, civil servants and other government employees at various Directorates of the DOHFW in this project, and includes health care workers (including Doctors, Nurses, Paramedics, Hygiene workers, Technicians, Auxiliary Nursing Midwives (ANMs) etc) at the target health facilities. These employees are as per the employment norms set by the government and conforming to prevailing employment regulations and labor laws in Meghalaya.

4. **Contract Workers:** Also, site specific contract workers will be employed as deemed appropriate by contractors, sub-contractors, and other intermediaries under the project that may involve construction, expansion, rehabilitation and/or operation of healthcare facilities. The contract workers are of two types: (a) contract staff at the health facility which may include Doctors, Nurses, Paramedics, Hygiene workers, Technicians etc., and (b) contract workers for civil works.

5. The contract worker for functioning of health care facility are generally a long term contract workers with periodic renewal of their employment terms and providing day-to-day services often because of increased patient load in particular hospital(s)/ health facility(ies) or to temporarily fill the vacant position till the time proper recruitment is conducted by the state government. These workers also meet the necessary employment eligibility for the particular position that they are filling in absence of permanent employee. The civil work on the other hand is undertaken by the civil contractor/ sub-contractor for repair, refurbishing, upgrading and/or building new healthcare facilities and often employing small number of labor given the scale of operation expected under the project. The civil construction will be undertaken on a need base to enhance the quality services as necessary in particular HCFs and will be dispersed at various locations across Meghalaya.

B. ASSESSMENT OF KEY POTENTIAL LABOR RISKS

6. **Labor Risk associated with Health Care Workers:** The potential risk to the health care workers (both regular employee and contracted staff) is associated with treatment of infectious diseases. This risk to health care workers is largely related to risks of exposure to pathogen. The occupational health and safety issues related to availability of adequate no. of PPE for health care workers; and risk related to handling, transportation, and disposal of health care waste.

7. **Labor Risk associated with Contract workers for civil works:** For civil construction workers risk are the occupational health and safety risks in dealing with construction activities. Given the civil work related to repair, refurbishing, upgrading will require small number of labor employed locally, hence no large labor influx is expected.

C. BRIEF OVERVIEW OF LABOR LEGISLATION: TERMS AND CONDITIONS

8. The terms and conditions of employment/ engagement for the direct and contract workers is presented below.

Type of Worker	Terms and Condition
Direct Workers	The direct workers are governed by the employment terms and condition as defined by the State government under the Department of Personnel and Administrative Reform. The state specific services rules apply to them. The employment code, wages, working hours, overtime, leave and benefits, disputes and grievances are all governed by the service rules.
Contract staff at Health Facilities (include Doctors, Nurses, Paramedics, Hygiene workers, Technicians etc.)	The contract staffs are governed by the terms set out in their contractual appointment for their employment. These contracts are regulated by The Indian Contract Act 1872 and its Amendments (last updated in December 2018) and provisions of Payment of Wages Act, 1936; Minimum Wages Act, 2020; Employer’s Liability Act, 1938; the Workmen Compensation Act,1923 and The Employees’ Compensation (Amendment) Act, 2017; Industrial Disputes Act, 1947; Maternity Benefit Act, 2017 and other relevant Acts. In case of contract staffs at the health facilities, employment code, wages, working hours, overtime, leave and benefits, disputes and grievances are all governed by the contractual obligations as set out in the contracts. However, the contractual staffs at the health facilities are also guided by the same occupational health and safety norms as set for all employees.
Contract workers for civil work	The key legislation governing the contract worker for civil work is ‘The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996’ and ‘The Building and Other Construction Workers (Regulation of Employment and Condition of Services) Central Rules, 1998’. This is a social welfare legislation that aims to benefit workers engaged in building and construction activities across the country and regulates the employment and conditions of service of building and other construction workers and to provide for their safety, health and welfare measures and for other matters connected therewith or incidental thereto.

D. BRIEF OVERVIEW OF LABOR LEGISLATION: OCCUPATIONAL HEALTH AND SAFETY

9. Given there is no major civil work under the project, and it is limited to minor repair, renovation and retrofitting, the occupational health and safety risks largely emerge from the current Covid19 pandemic situation and with minor civil works under the project. The key occupational health and safety guidelines specific to dealing with construction workers is provided in ‘The Building and Other Construction Workers (Regulation of Employment and Condition of Services) Central Rules, 1998’ and now in the process of being further updated with labor law reforms through

'The Occupational Safety, Health and Working Conditions Code, 2019 bill in the parliament which consolidates and updates codes for 13 odd labor laws in the country.

E. RESPONSIBLE STAFF

10. The overall responsibility of LMP implementation rests with the PMU at DOHFW. The Social Safeguard Specialist at the PMU will oversee the LMP implementation through HCF In-charges and DMHOs. And will be responsible for the following:

- Implement this labor management procedure
- Ensure that civil works contractors comply with these labor management procedures, and also adhere to occupational health and safety measures
- Ensure the contracts with the contractors are developed in line with the provisions of this LMP and the project's ESMF
- Monitor to verify that contractors are meeting labour and OHS obligations toward contracted and subcontracted workers
- Monitor contractors and subcontractor's implementation of labor management procedures.
- Monitor compliance with occupational health and safety standards at all health care facilities and all workplaces
- Monitor and implement training on LMP and OHS for project workers.
- Ensure that the grievance redress mechanism for the project is established and implemented and workers are informed of its purpose and how to use it.
- Have a system for regular monitoring and reporting on labor and occupational health and safety performance
- Monitor implementation of the Worker Code of Conduct

11. The Contractors will be responsible for the following:

- To obey requirements of the national and state legislation and this labor management procedure;
- Maintain records of recruitment and employment process of contracted workers;
- Communicate clearly job description and employment conditions to contracted workers;
- Have a system for regular review and reporting on labor, and occupational safety and health performance.

12. In addition, the Project Implementation Manual (PIM) and ESMF includes the standard clauses for inclusion in civil works contracts and includes LMP, OHS aspects, and the contractor's role and obligations towards them. This includes (but not limited to):

- The general obligations of the contractor with respect to maintaining the health and safety of the workers
- Ensuring no child labor and/or forced labor at the construction site for any works
- Equal pay/wage for men and women labors
- All laborers engaged at construction site to be provided with the required Personal Protection Equipment (PPE)
- Providing health and safety training/orientation on COVID19 to all workers and staffs
- In relation to COVID19, masks, adequate hand washing/ sanitization, clean drinking water and sanitation facilities to be provided at construction site
- Adherence to MOHFW advisories and all workers/labor to be regularly checked for symptoms before allowing entry to the work site. Paid leave to be mandatorily given if labor contacts COVID-19 and/or any other contagious disease while working at the construction site or in the labor camp

- Steps necessary to prevent labor harassment, including sexual harassment, gender-based violence and any discrimination based on religious, political and/or sexual orientation
- Basic facilities at labor camps (in case any labor camp is setup)
- Establishing Grievance Redress Mechanism (GRM) with GRM having provisions for receiving, registering, following up and resolution system for any complaint/grievance received during the construction period. And, ensuring workers awareness about GRM.

F. POLICIES AND PROCEDURES

Policy and Procedure for Direct Workers

13. For proper functioning of health facilities, follow guidelines as issued by DOHFW and Ministry of Health and Family Welfare (MOHFW) including for COVID-19. In addition, some of the key procedure emphasized in this LMP is ensuring

- (a) Sufficient PPE kits for health facility staffs
- (b) Parity with respect to usage of PPE among all workers irrespective of being regular or contracted;
- (c) Health and hygiene training and orientation for all;
- (d) Safety of women from any sexual exploitation and abuse (SEA) and sexual harassment (SH) and mechanism to access redressal services such as services provided by One Stop Centre (OSC) among others

Policy and Procedure for Contract Workers for Civil Work

14. The key procedure at the construction site includes as follows:

- (i) Equal pay/wage for men and women labors.
- (ii) No child labor and/or forced labor at construction site for all works
- (iii) Prepare a detailed profile of the project work force and key work activities
- (iv) All laborers to be provided with photo ID cards for accessing the construction site.
- (v) All laborers engaged at construction site to be provided with the required Personal Protection Equipment (PPE) – safety helmet and shoes, secured harness when working at heights, electrical gloves, eye protection for welding etc., without which entry to the construction site shall not be allowed.
- (vi) Limiting the number of workers on site at any one time
- (vii) Adequate hand washing and sanitization facilities provided during construction
- (viii) Health and hygiene training and orientation for all;
- (ix) Consider ways to minimize/control movement in and out of construction areas/site
- (x) Maintain a roster of workers/staff at work site indicating their health condition and symptoms and ensure screening procedures (non-physical temperature measurement) at work sites.
- (xi) Implement procedures to confirm workers are fit for work before they start work, paying special to workers with underlying health issues or who may be otherwise at risk
- (xii) Steps necessary to prevent labor harassment, including sexual harassment, gender-based violence and any discrimination based on religious, political and/or sexual orientation.
- (xiii) Depute and assign monitoring and reporting responsibilities on environmental management, health and personnel safety.

Policy and Procedure in Covid-19 Situation

- (i) Provide health and safety training/orientation on COVID19 to all workers and staff and other employees of the sub-contractor (tips on cough etiquette, hand hygiene and social distancing).

- (ii) Place posters and signages at/around the site, with images and text in local languages relating to personal safety, hygiene and on COVID-19 symptoms and guidelines.
- (iii) In relation to COVID19, masks, adequate hand washing/ sanitization, clean drinking water and sanitation facilities to be provided at construction site.
- (iv) All workers/labor to be regularly checked for symptoms before allowing entry to the work site.
- (v) Provide daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures.
- (vi) Segregate lunch hours at worksite of workers to maintain social distancing.
- (vii) Securing the construction site with entry only for authorized personnel and disinfecting of the worksite to be undertaken at close of work every day or as may be required.
- (viii) Check and record temperatures of workers and other people entering the construction area/site or require self-reporting prior to or on entering
- (ix) Require workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor if they have symptoms or are feeling unwell
- (x) Prevent a worker from an affected area or who has been in contact with an infected person from entering the construction area/site for 14 days
- (xi) Preventing a sick worker from entering the construction area/site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days
- (xii) Paid leave to be mandatorily given if labor contacts COVID-19 and/or any other contagious disease while working at the construction site or in the labor camp.
- (xiii) If workers are accommodated on site, require them to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract

15. The key procedure to be followed at the labor camp (if setup):

- Contractor to provide hygienic living conditions and safe drinking water.
- Separate toilets for male and females and adequate hand washing/sanitization facilities.
- Small creche and/or play areas for children with helper, when labor is away at work.
- Fireproof wiring and good quality electricals to be used inside the camp.
- Cooking gas and/or electric/induction plate to be provided for each labor household.
- Monthly/weekly health check up to be organized at the camp for all labors/family.
- Organize awareness campaign for social distancing and general health and hygiene
- Limit labor dormitory occupancy to ensure social distancing norms
- Labor camps to be cleaned and disinfected on daily basis
- Adequate hand washing and sanitization facilities provided in common areas
- Social gathering to be restricted and recommended protocols for health hygiene to be maintained
- Place posters and signages at/around the site, with images and text in local languages relating to personal safety, hygiene and on COVID-19 symptoms and guidelines.
- Providing cleaning staff with adequate cleaning equipment, materials and disinfectant
- Contractor shall include security measures to be provided at the camps which may include fencing, locks, alarms, pass card systems, badge and pass system, access points, safe transport of personnel as appropriate.
- In addition, Health advisories of MOHFW and State Government to be followed

G. AGE OF EMPLOYMENT

16. In accordance with the Constitution of India, no child below the age of fourteen years shall be employed to work in any factory or mine or engaged in any other hazardous employment. Employment of child under 14 years of age is strictly prohibited in any establishment. Adolescents between the age of 14 – 18 years cannot be employed in any hazardous occupation as per the Child Labour (Prohibition and Regulation) Amendment Act, 2016. Given the nature of occupation in health care settings and risk to infections, the minimum age of employment is 18 years.

17. Contractors will be required to verify and identify the age of all workers. This will require workers to provide official documentation, which could include a birth certificate, ration card, Aadhar card and other national identification cards, passport, or medical or school record. If a minor under the minimum labour eligible age is discovered working on the project, measures will be taken to immediately terminate the employment or engagement of the minor in a responsible manner, taking into account the best interest of the minor.

H. TERMS AND CONDITIONS OF EMPLOYMENT

18. The terms of employment of the direct project workers of regular category is governed by the All India Service rules/ State specific service rules, the terms of employment of the contractual staffs at the health facilities is governed by their terms of contract as mentioned above and in all cases the principles of non-discrimination and equal opportunity apply.

19. The terms of employment of the contract workers for civil work is also based on the terms of contract and governed by the larger policies laid down by the government specifically 'The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996' and 'The Building and Other Construction Workers (Regulation of Employment and Condition of Services) Central Rules, 1998'. The act specifies that no worker employed in building or construction work shall be required or allowed to work for more than nine hours a day or forty-eight hours a week. Over that s/he shall, in respect of overtime work, be entitled to wages at double the ordinary rate of wages.

I. GRIEVANCE MECHANISM FOR LABOR ENGAGED IN CONSTRUCTION WORK

20. The Sub-project level grievance redress mechanism (GRM) to be setup. The main objective of a Grievance Redress Mechanism (GRM) is to assist to resolve complaints and grievances in a timely, effective and efficient manner that satisfies all parties involved. Construction Site Specific Grievance Mechanism to be setup by the contractor/ sub-contractor. It shall include site specific Grievance Focal Point (GFP) assigned by the Contractor who will file the grievances and appeals of contracted workers and will be responsible to facilitate addressing them. If the issue cannot be resolved at contractor's level within 7 working days, then it will be escalated to HCF Management and then to DMHO at district level and finally to the contract issuing authority.

21. The GFP will register the grievances in a formal manner in register or in electronic format to be easily tracked for its resolution. The GRM will include the process of screening, investigation, resolution of grievances, documentation, and reporting of grievances as the steps mentioned below.

Step 0: Raising and registering the grievances using various mechanism including through written or verbal complaints and registered in grievance logbook at the construction site at healthcare facility; or using the MOHFW mechanism as mentioned in Section 9.

Step 1: Grievance raised is screened by the GFP and based on its severity/ jurisdiction forwarded to respective contractor/ sub-contractor for redressing

Step 2: Grievance discussed at the GFP/ respective contractor/ sub-contractor level, and addressed

Step 3: If not addressed in stipulated period it is escalated to next level at HCF Management, and then to CMO and finally to contract issuing authority

Step 4: Once addressed, feedback is given/ sent to the complainant

Step 5: If not satisfied, appeal to the other public authorities

22. Once all possible redress has been proposed and if the complainant is still not satisfied then they should be advised of their right to legal recourse.

23. Quarterly report on the grievances received at each of the subproject is submitted to the contracting authority at the state level and a compiled summary of the same by the State E&S Nodal Officer to NPMU on quarterly basis.

J. CONTRACTOR MANAGEMENT OF CIVIL WORKS

24. While the appropriate contract issuing authority will oversee the implementation of contract as per the terms and clauses mentioned in the contract. The Environmental Specialist and Social Safeguard specialist at the PMU in association with DMHO at district level/ or through HCF In-charge will manage and monitor the E&S performance of contractors in relation to contracted workers, focusing on compliance by contractors with their contractual agreements (obligations, representations, and warranties) and labor management procedures. This may include periodic audits, inspections, and/or spot checks of the sub-project locations and work sites as well as of labor management records and reports compiled by the contractors.

25. Contractors' labor management records and reports that may be reviewed would include representative samples of employment contracts or arrangements between third parties and contracted workers, records relating to grievances received and their resolution, reports relating to safety inspections, including fatalities and incidents and implementation of corrective actions, records relating to incidents of non-compliance with national law and the labor management procedures, and records of training provided for contracted workers to explain occupational health and safety risks and preventive measures.

ANNEX-III: STAKEHOLDER CONSULTATIONS DURING PREPARATION

Below is the list of stakeholders consulted during the project design.

SL No	Name	Designation	Department/Organization
Line Departments and Agencies			
1	Smti Mary Anne Kharbhih	Research Officer	Department of Social Welfare/women and Child/Tribal Affairs
2	Shri Dipul. R. Marak	Chief Executive Member	Garo Hills Autonomous District Council
3	Shri Thombor Shiwot	Chief Executive Member	Jaintia Hills Autonomous District Council
4	Shri Titosstarwell Chyne	Chief Executive Member	Khasi Hills Autonomous District Council
5	Shri J War	Executive Member	Khasi Hills Autonomous District Council
6	Shri Andy L Basaiawmoit	Under Secretary	Khasi Hills Autonomous District Council
7	Shri A.S. Suting	Officer on Special Duty	State Council of Science Technology and Environment
8	Smti Erisa Shilla	Assistant Environment Engineer	Meghalaya State Pollution Control Board
9	Shri J H Nengnong	Member Secretary	Meghalaya State Pollution Control Board
10	Shri. Batlang Sohliya MCS	CEO	Shillong Municipal Board
11	Shri S.Amse	Junior Engineer	Jowai Municipal Board
Medical Association and Private BMW Collector			
12	Shri Kitbok Marbaniang	Secretary	Meghalaya Disposal and Waste Management Society
13	Shri B. Marbaniang	President	Meghalaya Disposal and Waste Management Society
16	Dr. Yvette Phira	President	Meghalaya Medical Services Association
Health Care Facilities			
14	Dr. Bethel	I/C Infectious Disease and Cleanliness Committee	Tura Civil Hospital, Tura
18	Dr. Meenakshi R Sangma	I/c Superintendent	Tura Civil Hospital, Tura
15	Smti Sandra Kharsati	Environment Technician	Shillong Civil Hospital, Shillong
17	Dr. Nongbri	Surgeon Superintendent	Shillong Civil Hospital, Shillong
19	Dr. Waislin . K Marak	District Surveillance Officer	DMHO/ North Garo Hills
20	Dr Rezia. K. Sangma	Medical Officer	Resubelpara CHC
21	Dr Ibanri Syiem	Block Medical Officer	Mawkynrew Block/CHC
22	Dr. Subhro Das	Medical Officer	Dangar PHC
23	Dr. Joan N Shullai	Medical Officer	Ladthalaboh UHC
24	Dr. Janet B Marwein	Medical Officer	Mawpat UHC
25	Dr. Mukta Miah	Medical Officer	Bhaitbari PHC
26	Dr. Chinglen Khomba	Medical Officer	Siju PHC
27	Dr Borbhuya	Medical Officer	Barato PHC

SL No	Name	Designation	Department/Organization
28	Dr. Apphira	Medical Officer	Madan Maroid PHC
Traditional Community Heads			
29	Shri Trusterly F Kharraswai	Executive Member RKS	Dangar
30	Shri Motior Rahman	Headman Bhaitbari/ Member RKS	Bhaitbari
31	Shri Danny Shadap	Headman /Member	Madan Kynsaw/Synjuk Waheh Shnong Ri Jaintia (Council of Headmen)
32	Shri . S. Kurbah	Headman	Phudmuri Mawlai
Civil Society - CBOs and NGOs			
33	Shri S Khonglam	Secretary Village Defence Party	Phudmuri
34	Shri S Sohlang	Executive Member	Dorbar Shnong Phudmuri
35	Smti B Mawlong	Member	Seng Longkmie Phudmuri (Women group)
36	Smti. M Lyngdoh	President	Seng Longkmie (Women group)
37	Smti E Kharmawphlang	Member	Seng Longkmie
38	Shri C Poh	Executive Member	Dorbar dong Phudmuri
40	Shri L Nengnong	General Secretary	Dorbar Phudmuri
42	Shri C Laloo	Programme Officer	Grassroot
43	Smti Salome Suchaing	Team Leader	Grassroot
44	Smti Memorial Khongshei	Senior Trainer	Grassroot
45	Smti M Ryntathiang	Senior Consultant	Voluntary Health Association of Meghalaya
46	Smti Joy Syiem	Team Member	North East Network
47	Shri Andrew Rajiv Lakiang	Programme Manager	Akhil Gandhian
48	Shri Manbha Laloo		Jaintia Hills Development Society
49	Smti Sunita Bareh	Programme Manager	Mih Myntdu Community and Social Welfare Association

ANNEX-IV: HEALTH CARE FACILITIES WHERE BASELINE CONDUCTED

Below is the list of HCFs from where the baseline checklist was administered for collecting the baseline data as mentioned in this report.

Sl.No.	Type of HCF	Name of the HCF	Location
1	DH	TSMH Mairang Civil Hospital	Shillong, East Khasi Hills
2	DH	Nongpoh Civil Hospital	Ribhoi
3	CHC	Ichamati CHC	Ichamati Village, Shella Bholaganj, East Khasi Hills
4	CHC	Nongkhlaw CHC	Nongkhlaw, West Khasi Hills
5	PHC	Laitryngew PHC	Laitryngew, Sohara Sub-Division, East Khasi Hills
6	PHC	Pomlum PHC	Pomlum Village, Myllem Block, East Khasi Hills
7	PHC	Ryngku PHC	Ryngku, Mawsynram, East Khasi Hills
8	PHC	Swer PHC	Swer, Laithroh, East Khasi Hills
9	PHC	Kynshi PHC	Kynshi, Mawthadraishan, West Khasi Hills
10	PHC	Rambrai PHC	Rambrai, Nongstoin, West Khasi Hills
11	PHC	Saipung PHC	Saipung, Saipung, East Jaintia Hills
12	PHC	Umkiang PHC	Umkiang, Khliehriat, East Jaintia Hills
13	PHC	Maheshkola PHC	Maheshkola, Rongara, South Garo Hills
14	PHC	Sibbari PHC	Sibbari, Gasuapara, South Garo Hills
15	PHC	Zikzag PHC	Zikzag, Zikzag, South West Garo Hills
16	UHC	Chutwakhu UHC	Chutwakhu, Jovai, West Jaintia Hills

ANNEX-V: GENERIC BIOMEDICAL WASTE MANAGEMENT PLAN

Introduction

Biomedical waste management (BMWM) Plan is a management tool for effective management of BMW and associated risks on health functionaries and communities. It is an essential requirement for managing environmental aspects and their impacts under Environment and Social Management Framework (ESMF) of a health sector project funded by the World Bank.

The component 1. i.e. Improving Management and Accountability Systems, under Project Development Objectives of Meghalaya Health System Strengthening Project aims to strengthen the State Department of Health's management and accountability systems, which will in turn contribute to improving delivery and quality of health services. The sub-component "Strengthening of biomedical waste management" is directed towards development of a plan for improving management and disposal of all biomedical waste generated by both government and private health facilities, in collaboration with the State Pollution Control Board and municipalities. The project plans to finance implementation of the plan, including investments in necessary infrastructure, equipment and training, private sector engagement, IEC, infection prevention measures and immunization for health care providers.

Current status of the health sector and BMWM in the state

This section covers description of the health sector in the state i.e. an overview of the state department of health and the type of the health facilities and location, key health manpower and their distribution etc.

The section covers current assessment of BMW Management in the state health facilities, both state run as well as private health facilities, as done by the ESIA under the project as well as through compilation of state health statistics from various routine health reporting instruments. The assessment must include estimates of the types of wastes generated, average rate of generation and location, arrangements for handling, storage, treatment and disposal of the wastes. In addition, an assessment of the current practices and adverse impacts on health, safety and environment needs to be accounted for in the section. This would also include assessment of current endemic outbreaks that might be occurring in the country as well as the world that may have potential impacts on healthcare systems e.g. Covid-19 pandemic in the current situation.

Framework of regulatory and other mechanisms for BMW management

The section includes information about the various international and national regulatory and other mechanisms governing environmental aspects in health sector. Such instruments set the boundaries for managing BMW at national and local levels. These include but not limited to following:

- international multilateral environmental agreements such as Minamata Convention, Stockholm convention,
- WHO guidelines on BMW Management and outbreaks management e.g. Covid-19 pandemic etc.
- World Bank best practices and specific guidance.
- National regulation on BMWM e.g. BMWM Rules, 2016 and associated Central pollution control board guidelines, public health guidelines etc.
- Other environmental regulations e.g. Air act 1974, Water act 1981, etc.

Organizational arrangements

At the state level (PMU)

The organizational arrangements include a nodal officer appointed with the responsibility for BMW Management, supported by a technical specialist in Environment management. The roles and responsibilities of the nodal officer and BMW team need to be specified at the outset.

At the state level, constitution of a state level BMW Coordination committee is required to monitor BMW management and coordinate among stakeholders. The committee need to include representatives from stakeholder organizations such as state departments e.g. pollution control board, labour inspectorate, NGOs, Professional associations- doctors, nursing, dentists etc., medical and nursing educational institutions, NGOs etc.

Facility level

BMW Committee at facilities: For larger facilities e.g. medical college, district hospital etc, such committee to have representatives from different clinical, pathology, laboratory and engineering / sanitation departments etc. The TORs covering roles and responsibilities to be specified in the plan.

For smaller facilities, smaller teams with representatives from clinical area, laboratory and sanitation to be constituted.

Training and capacity building

The section covers an account of assessment of training needs of different categories of health workers at different tiers of functioning need to be made up. Based on the identified needs, training plan for awareness and training on BMW management covering state health facilities including private ones is required to be in place. The training sessions need to be designed for specific groups e.g.

An Information, Communication and Education (IEC) plan covering types of communication modes, target populations and messages etc. to be prepared and implemented across the state targeted to health workers, visitors and patients and general community living near the health facilities. The plan needs to cover clear messages on BMW in the facilities and its impacts as well as responsibilities of various stakeholders. The IEC must also include information about grievance redressal mechanisms available to the communities on project activities related to BMW management.

Measures for the strengthening of capacity of PMU need to be identified and specified. Such measures may include technical support of Environment Specialist, orientation of Nodal officer and team on World Bank requirements on ESMF including BMW, regulatory and other requirements and technical measures required for BMW management. Availability of budgetary provisions for BMW Management with clear indication of measures planned as per the BMW plan need to be put in place.

Implementation of waste management in health facilities

The implementation plan covers details of options and mitigative measures to be implemented covering entire cycle of different types of BMW at facility level including special provisions for meeting requirements during outbreaks, including following:

- Generation of waste
- Segregation
- Handling and storage within the facilities
- On-site treatment of wastes e.g. disinfection, microwaving, incineration, deep burials etc.
- Transportation to external facilities
- End treatment
- Final disposal

Resources and tools for BMW management

Effective management of wastes such as sharps and infectious wastes cannot be achieved without provision of safety to waste handlers and proper equipment for storage and transportation of wastes. Therefore, an account of various BMW tools and other resources e.g. waste collection bags, trolleys, needle cutters, personal protective equipment, disinfectants etc., must be included in the plan.

Occupational health and safety provisions to be implemented at health facilities covering:

- Infection, prevention and Control (IPC) protocols for biological hazards, with special emphasis for high risk infectious diseases agents for health sector workers e.g. MERS, SARSCov2, Ebola etc.
- Safe work practices for hazardous works e.g. handling sharps, cytotoxic drugs, radiation work, environmental sanitation, etc.
- Preventive immunization of health workers against Hepatitis B
- Availability of Post Exposure Prophylaxis against HIV infections.

Key points for daily supervision of BMW implementation by Nodal officer / members of Waste Management Committee is required, covering following minimum aspects:

- Segregation of waste into appropriate bags and bins.
- Availability and use of needle cutters, waste collection and transportation materials etc.
- Availability and use of personal protective gears by waste handlers.
- Regular environmental cleaning e.g. cleaning of walls, surfaces and equipment etc by housekeeping staff.
- Regular transport of biomedical wastes from wards / clinics to central wastes storage area (if present) or to deep burial site / common treatment facility and quantities of wastes disposed.

Monitoring and evaluation mechanism

Monitoring and evaluation mechanisms need to be specified at state, district and facility levels, with role and responsibilities and resources available for carrying out activities. The monitoring activities and organization must be aligned to the Quality Assurance activities for patient safety.

Details of procedures for supervision and monitoring of BMW to include but not limit to following key aspects of BMW Management:

- Organizational set up at state and facilities level- Human, Financial and technical resources
- Institutional mechanisms across departments and various disease control programs for coordination of BMW management.
- BMW material and equipment resources at facilities level. This includes additional supplies e.g. PPE, Bins, bags etc for surge in BMW due to disease outbreaks such as Covid-19.
- BMW Management practices e.g. segregation levels, sharps management systems, duration of storage of BMW in facilities, etc.
- Occupational health and safety provisions at facilities and their implementation e.g. PEP availability, immunization status of health functionaries etc.
- Incidents and accidents monitoring including sharps injuries, hospital acquired infections, mercury spills and their management etc.
- Training and capacity building at various levels of the healthcare delivery system on BMW Management.
- Availability and use of clean water and proper sanitation in health facilities
- Number of health facilities accredited with Quality certification.

Annexes

Annexes covering specific details of the areas as specified in the plan need to be annexed. A suggestive list may include following at the minimum:

- Organizational set up for BMW management at various functional levels
- List of regulatory and other requirements for BMW management in the state
- Types of BMW and their potential impacts and available treatment and disposal options, based on ESIA study and state data compilation
- Composition and TOR of State, district and facility level BMW Management committees
- List of key monitoring indicators for BMW management