# MEGHALAYA HEALTH SYSTEMS STRENGTHENING PROJECT

(P173589)

## Environmental and Social Management Framework (ESMF)

Draft Report

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### ABBREVIATIONS AND ACRONYMS

ADC	Autonomous District Council
ADC	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
СМО	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
GDV	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 and communication technology
IMR	Infant Mortality Rate
IPA	Internal performance agreement
IPF	Investment Project Financing
IPM	Internal Performance Management
IT	-
JHADC	Information Technology Jaintia Hills Autonomous District
JSSK	Janani Shishu Suraksha Karyakaram
JSSK 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 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 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. 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.

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., in select HCFs. Since significant investments are not envisaged through the project in this regard, an investment impact assessment to account for GHG analysis and benefits will be done during project implementation, if required.

*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.

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. A TA provider will be set up to augment the PMU's capacity in administrative and technical areas including environment and social. Technical and knowledge partnerships as well as multi-stakeholder engagement will be established to augment technical capacity of the department.

At the health facility level, the Chief Medical Officer (CMO) will be responsible for environmental and social standards due diligence 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. The DoHFW will lead the results monitoring and evaluation arrangements of the

project. Within the DoHFW, the PMU will provide overall monitoring, reporting, benchmarking and evaluation of the targeted health facilities and communities supported by the proposed project.

#### 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 2<sup>nd</sup> April 1970 while the full-fledged State came into existence on 21<sup>st</sup> 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.

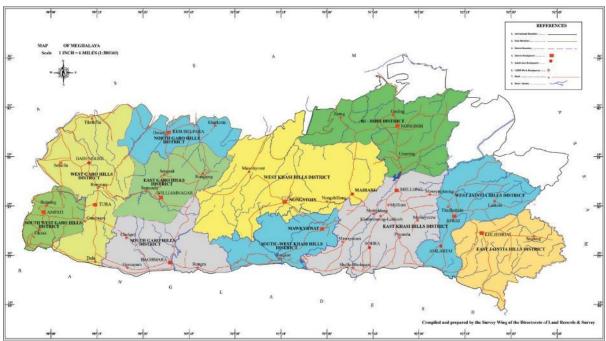


Figure 1: Map of Meghalaya

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.

Table (1): Demographic Profile of Meghalaya							
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*	1377	125,552	/3./%	175	07.0%	72.4%	02.7%
East Garo Hills	1059	50 270	06.0%	122	73.9%	77.7%	70.1%
North Garo Hills*	1058	58,328	96.0%	122	13.9%	//./%	70.170
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*	1093	04,900	97.0%	15	11.9%	78.3%	11.2%
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	66 029	95.2%	103	61.6%	58.1%	65 10/
West Jaintia Hills*	490	66,028					65.1%
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.

#### <u>Khasi and Jaintia Tribes</u>

The term "Khasi" generally is used to describe a group consisting of the Khynriam, 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.

#### <u>Garo</u>

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 index<sup>1</sup> 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. 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.

<sup>&</sup>lt;sup>1</sup> Healthy States Progressive India - Report on the Ranks of States and Union Territories, June 2019, by Niti Ayog. Available at <u>http://social.niti.gov.in/uploads/sample/health\_index\_report.pdf</u>

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	% pregnant women who took IFA	Four or More ANC visits	Institutional Delivery	% Children between 12- 23 months	
	ANC in 1st trimester	tablets for at- least 100 days			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 (20	15-16)					

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).

	Table (3): Health Care Facilities in Meghalaya							
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 Statistic	cal handbook, 2	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.

Table (4): Health Facilities in Meghalaya							
Type of Health FacilityTypology and Geographic DistributionHuman ResourcesNumbers							
and provide specif	ic services like Ganesh Das M Shillong and TB Hospital at T	s ranging from 100 plus to 500 Mother and Child Hospital in Sh Fura. They report directly to the	nillong, Reid Provincial				

Table (4): Health Facilities in Meghalaya					
Type of Health Facility	Typology and Geographic Distribution	Human Resources	Numbers		
District Hospital (DH)	At least one in each district except in two districts i.e. South West Khasi Hills, and North Garo Hills. <b>District Hospital</b> serves as secondary referral unit and provides comprehensive secondary health care services to the people in the district. 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. <b>Sub-district or Sub- divisional hospitals</b> ( <b>SDHs</b> ) 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.	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.	Every district has at least one District Hospital except in two districts i.e. South West Khasi Hills, and North Garo Hills.		
Community Health Centres (CHCs) or Sun- Divisional Hospitals	CHCs are being established and maintained by the State government. It also works as a First Referral Unit (FRU). In Meghalaya, the	CHC is manned by four medical specialists i.e. surgeon, physician, gynecologist and pediatrician supported by 21 paramedical and other staffs. It is supposed to have 30 in-	There are 27 CHCs in the Meghalaya – atleast one in every district.		
	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			

Table (4): Health Facilities in Meghalaya					
Type of Health FacilityTypology and Geographic Distribution		Human Resources	Numbers		
		facilities for obstetric care and specialist consultations.			
Primary Health Centers (PHCs)	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. In Meghalaya, the standard norm for a PHC is at every 20,000 population as being in hilly areas.	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). 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.	There are 112 PHCs in Meghalaya.		
Sub – Centre (SC) Source: DoHFW,	The Sub Centre (SC) is the most peripheral and first contact point between the primary health care system and the community. In Meghalaya, the standard norm for a SC is at every 3,000 population as being in hilly areas.	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.		

#### **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/ SiteLocationDistrict						
Megalithic Bridge on the Um-Nyakaneth, between Jaraem and Syndai	Um-Nyakaneth	Jaintia Hills				

Table (5): Protected Archaeological and Historic Sites					
Name of the Monument/ Site	Location	District			
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://asigu	wahaticircle.gov.in/m	leghalaya.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 1: Methodology for the Development of ESMF

DESK REVIEW

- Background documents including studies, data pertaining to the Meghalaya and health service delivery system
  Central & state level laws and regulations
- World Bank Environmental and Social Standards

Key officals at DoFHW, and other line departments to discuss proposed activities and potential risks.

MEETINGS & DISCUSSIONS

#### BASELINE ASSESSMENT

Collection of information from sample DH, CHC, and PHC using questionnaire on (i) Biomedical waste management, (ii) occupational health and safety, and (iii) Social safeguards.

Consultations with key stakeholders including from sample DH, CHC and PHC; relevant line departments/ agencies identified through stakeholder analysis and includes Govt officials, Autonomus Development Councils, NGOs and community members.

STAKEHOLDER CONSULTATION

#### 2.3 Project Components

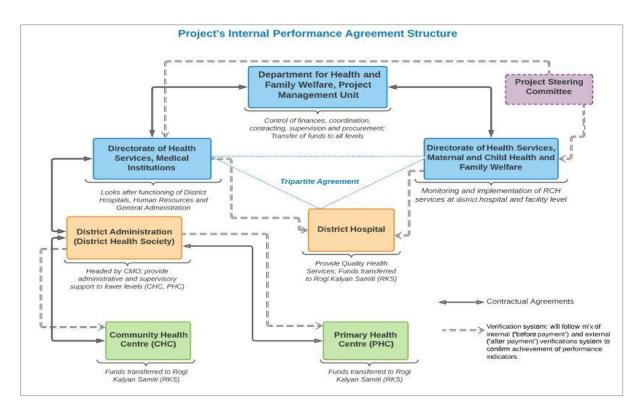
The Meghalaya Health Systems Strengthening Project combines results-based financing (RBF) and input-based financing approaches to achieve enhanced performance management in the public sector. It uses a system's approach and is broken down into three individual components which need to be appreciated as forming part of a whole system's approach complimenting each other – the first component strives for results, while the second and third components are designed for input-based financing and are critical for achieving the project objectives. In addition, strengthening the management and organization of the health insurance program is expected to boost health insurance utilization and a swifter reimbursement to providers. A rigorous performance management approach will align incentives to support planning from top to bottom to move incrementally toward the national accreditation standards for district hospitals, CHCs, and PHCs.

**Component 1. Improving accountability, management and strengthening governance (cost US\$ 18 million).** This component provides Provision of Performance Incentive Grants to Health Agencies and Health Facilities to improve governance and management structures. The project envisages IPAs as a tool to infuse new way of operations by moving from input-based financing to RBF. An RBF approach is expected to strengthen the management and accountability relationships between the state-and the substate-level implementing units. Grants to institutions and health facilities would be made available against the achievement of performance indicators specified in IPAs. The IPAs aim to foster a spirit of more accountable government, along with results-based financing, contributing to improvements in management of the system and delivery of quality health services.<sup>2</sup>

The IPAs will be designed to align the objectives of the participating entities. Internal verification mechanisms, governed by IPAs, will ensure regular assessments. An external counter-verification mechanism will be established to validate internal verification results. Additionally, a capacity building vehicle will be prioritized for the implementation of IPA and to build the local institutional capacity to sustain the management capacity and practices beyond the project. The capacity building vehicle consist of "champions" from health department at different level who will play key role in internal assessment of results and provide mentoring support, secondly, the local level institution (academic or think tank) will be identified who will be involved in the project activities as an advisor and mentor the department. The Bank and State will jointly identify local institutions and provide exclusive technical assistance for building their capacity that will be retained in the State.

**IPAs will be implemented at the state, district, and health facility levels.** Each of these levels will contribute to system strengthening, to improve the health insurance programs and the quality of health services. Entities with which the DoHFW will sign internal agreements are (a) the state-level DMPH, the DHME, their subsidiary departments, and the MHIS; (b) district-level health administrations and district hospitals; and (c) health facilities, at both the primary (PHCs) and first-referral (CHCs) levels. Agreements will be signed between different levels of the system, as described in figure below.

<sup>&</sup>lt;sup>2</sup> Fritsche, G., et al. 2014. *Performance-Based Financing Toolkit*. Chapter 8, page 165. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/17194 License: CC BY 3.0 IGO.



At the health facility level, this approach will provide flexible resources, strengthening management autonomy of decentralized structures. A system of geographic equity adjustments will be put in place to ensure that the most destitute health facility will have relatively the largest performance budget. To start with a total of 95 health facilities (11 DH, 18 CHC and 66 PHC) has been indetified, indlusing 64 rural primary health centers. Measures that will govern these geographic equity adjustments will include travel time to the state capital, human resources density, poverty scores, and immunization coverage. At the health facility level, the IPA will be focused on key structural quality elements such as planning, budgeting, and coordination; user experience targeting women patients; and core metrics for content of care quality such as knowledge and competency tests of providers. These quarterly metrics, carried out timely and diligently by certified assessors from district and state levels (responsible to their departments, governed by IPAs), will be carefully designed in close collaboration with the client and adjusted incrementally once a year or once in two years.

**Implementation will use an iterative adaptive learning approach where attention will be given to identifying and nurturing change agents at each level of implementation.** Processes which draw in key interlocutors at each level (health facilities; district health administration; State MOH departmental levels) through purposeful design, will yield tools that will achieve their intent. IPA design will start with PHC and CHCs and DHs, after which district health administration will be targeted. Finally, the IPAs at select State MoH department levels will be designed. These processes will be started during appraisal with virtual tours of health facilities after which a calendar will be created for technical working groups. TWG sessions will start with defining key performance gaps and will share experience from select successful performance enhancement approaches from comparable contexts. Tools and methods will be crafted collaboratively, after which a plan will be used to ensure lessons learned in the pilot will be incorporated before scaling. Attention will be paid to identifying and nurturing change agents at each level.

The performance metrics in the IPA are determinants of improved management capacity and quality of health services. Distinct performance metrics are designed for the levels as per their roles

and responsibilities that contribute to enhanced access to and quality of health services. The various metrics in the performance frameworks are designed and weighted using a bottom-up process with the client. The state-level indicators (for directorates) are to improve timely resource allocation to districts and health facilities, for policy reforms in human resources and their deployment, and to ensure procurement and supply of drugs and medical equipment as per the need. District-level performance indicators contribute to improved monitoring and supervision, coordination support for supply of drugs, institutional-level review for biomedical waste, and facilitation of quality improvement and accreditation processes. At the health facility levels, performance indicators are targeted to improve quality of service delivery including content of care quality, patient satisfaction, satisfaction and user experience of women patients, biomedical waste implementation, use of energy efficient resources at the facility level, reporting and documentation, and clinical skills of the medical staff including knowledge enhancement on climate-related diseases and disasters.

The directorates will be supported in identifying existing sector wide gaps in management, delivery, and quality of health services, as well as in coverage and operation of the health insurance program. They will be supported in determining the most suitable approaches to address these gaps, developing action plans, and operationalizing those plans. A first phase of performance-based funding will be provided to the directorates, district-level health offices, eligible subsidiary divisions, and the health insurance program, which will meet preconditions reflecting a minimum level of capacity and interest, including development of action plans with agreed targets and these latter will be a precondition for this first phase of funding. This process will build institutional capacity of the decentralized health administrative units at the state and substate levels in need-based planning and management of health services.

The IPAs will encompass objectives, key results, and indicators reflecting those results, as well as financing tied to the composite performance score of the IPA. Action plans will be defined for accomplishing the results, with implementation of the action plans supported by a first phase of funding, followed by funds transferred based on results. Indicator definitions and reporting procedures will be specified, with reporting aligned to the existing health management information system (HMIS) and other reporting or documentation systems, while the IPA results will be assessed each quarter by certified assessors. Internal and external verification procedures will also be specified in the IPAs. Regular results assessments will be institutionalized, and data availability will be enhanced through the creation of a dashboard.

Though NQAS certification comes with a monetary award, getting health facilities prepared for accreditation has significant up-front costs, and this is where the health facility IPA comes in. The health facility IPA will provide funding based on quality performance. Part of the health facility quality index will be metrics measuring progress on accreditation planning and implementation. Furthermore, low-quality health services have an immediate impact on health benefits, and it seems imperative to tackle this as a matter of some urgency. Also, in times of the COVID-19 epidemic, strengthened attention to infection control and prevention, in general, is urgent. Process quality in the Donabedian sense, the 'content of care quality', which is what happens between the provider and the patient, is significantly related to outcomes of health services.<sup>3</sup> A significant weight within the quality index will come from anonymized health worker knowledge scores.

## The achievement of performance indicators reported by the administrative units and health facilities which are parties to the IPAs will be verified in two ways:

(a) An existing pool of human resources who are currently tasked with various Quality Assurance (QA) activities will use the internal verification mechanism. These individuals will be mapped organizationally to departments and units that will be under IPAs. These "champions" will be

<sup>&</sup>lt;sup>4</sup> Government of India. 2019a.

the "change agents" at different levels in the system will also operationalize and prioritize implementation of IPA in the State.

(b) An external agency will undertake the counter verification of results confirmed by internal verification system. This external agency will independently assess a sample of the reported results as well as the use of financial incentives by different levels.

The IPA is an effective way for all stakeholders to collectively think beyond inputs. Moreover, it promotes defining the results together, compelling health officials at different levels to be more mutually accountable for shared goals. This approach emphasizes working backwards by focusing on desired outcomes, identifying binding constraints, and using financing to unlock those constraints.

Under Component 1, the project will finance the incentives in the form of grants to institutions and health facilities against achievement of results as per the IPA. These grants will be used for implementation of activities that support approved improvement plans to increase the quality of health services and overall accountability in the health system.

Component 2: Strengthening systems to improve the quality of health services (cost US\$ 17 million). The investment under this component will: (a) Development and implementation of a quality assurance program including training, certification and quality tracking tools, and investments in the functionality of health services infrastructure, for district hospitals, CHCs and PHCs; (b) Provision of support for infection prevention and control, environmental and energy efficiency measures, and management of resources and biomedical waste at the health facility level; (c) Development of tools and provision of technical assistance including training and outsourcing to improve: (i) human resources supply, planning and management, (ii) in-service capacity-building, and (iii) pre-service education; (d) Strengthening of DoHFW's procurement of medicines and consumables and supply chain management at state and sub-state levels; (e) Development of systems for, and provision of training and technical assistance to, the administrative structures responsible for health system management in planning, management and monitoring; and (f) Provision of support for the management of the Project, including on its technical, fiduciary, safeguards management, monitoring and evaluation aspects. Under this component, the project will also support review of the HR policy to promote women professionals' entry, transition and career advancement across various job roles in the health sector. The component will also incentivize hiring of women professionals through preferential clauses in the PPP contracts. This component involves various information and communication technology (ICT) activities to improve the overall efficiency and will also pilot ICT solutions under innovations. These investments will improve the capacity of the state government health systems to better respond to the ongoing COVID-19 pandemic as well as increase preparedness for future outbreaks.

- a. Develop comprehensive quality assurance programs to improve delivery and quality of health services provided by DHs, CHCs and PHCs. This will include investments for certification under the National Quality Assurance Standards (NQAS). As part of continuous capacity building, the state will create a pool of trainers to undertake facility-level trainings and mentoring along with a hands-on approach for implementing NQAS. The project will establish a quality-tracking dashboard for monitoring. To achieve quality standards, the project will invest in health service infrastructure to improve functionality. This will include improvements to water supply, sanitation and electrical power, as well as technical infrastructure like neonatal and pediatric intensive care units.
- b. **Support to infection prevention and control, and biomedical waste management.** The project will support improvements in infection prevention and control at the health facility level, including necessary supplies, equipment and training. It will also support development and implementation of a plan for improving management and disposal of biomedical waste generated by both government and private health facilities, in collaboration with the State Pollution Control Board and municipalities. The project will support interventions to make

health facilities environmentally friendly and energy efficient. This will include using solar power, conserving water resources through rainwater harvesting and landscaping, and improving public spaces. Along with overall strengthening of the health system to respond to increased burden of disease attributable to the effects of climate change, these projectsupported activities will help mitigate immediate aspects of the impact of climate change on the natural environment of the state.

- c. Development of human resources. The project will improve capacities and management of human resources in order to maximize the **r**eturn on investments in service delivery capacity and quality. The project will address constraints to availability, motivation, and performance of health human resources in three areas, namely (i) human resources supply, planning and management: (ii) in-service capacity building: and (iii) strengthening pre-service nursing education. The capacity of the DoHFW for planning and management of human resources will be strengthened including a detailed enumeration of the human workforce across cadres to map current demand and supply. This will inform development of a human resources for health strategy and a management framework, including a forecasting plan. Shortages in human resources for health will be addressed by contracting-in specialists for hospitals, and outsourcing management of selected PHCs and CHCs under contracts with the private sector. Capacity-building will aim to develop technical and managerial skills and competencies of health cadres. The project will 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 project will also implement "Low Dose High Frequency (LDHF) Trainings" for health facility staff with the aim of building clinical skills and improving quality of care. Initiatives for improving the skill-mix and distribution of responsibilities of in-service physicians and nurses (task-shifting) will be piloted in selected districts. The project will also strengthen the pre-service education in the General Nursing and Midwifery schools and contribute to upgrading the existing GNM schools to B. Sc college of Nursing.
- d. **Strengthening of procurement and supply chain management.** The DoHFW procurement and supply chain management systems 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 procurement and supply chain management, like the State Procurement Board. This will include organizational strengthening, business process reengineering, need-based retrofitting, warehouse renovations to improve storage capacity, and development of monitoring capacity and information systems.
- e. **Testing innovations in service delivery through pilot interventions.** The project will support design, development, and piloting of innovative models for outreach and service delivery outreach. Activities may include (i) using tele-medicine to connect PHCs for referral and tertiary care, and (ii) using drones for the purpose of improving the health service delivery such as emergency supplies of drugs and blood units in hard-to-reach areas.
- f. **Improvement of planning, management, and monitoring.** The project will strengthen the administrative structures responsible for health systems management. This will include technical support and training for administrators at the state and district levels on planning, management and technical issues, with support by a contracted Project Management Agency (PMA). The project will support knowledge exchange with other states in the region as well as other parts of India on technical and system development innovations and reforms. The project will support integration of existing information systems and development of applications to improve oversight and management of the health system. This will include development of a command-and-control system to foster inter-operability of existing

information systems and applications, including the health management information system (HMIS), epidemiological surveillance system, electronic health records, human resources management information system (HRMIS), the MHIS information system, the grievance redressal system, and others.

**g.** Provision of support for the management of the project, including on its technical, fiduciary, safeguards management, monitoring and evaluation aspects. A Project Management Unit (PMU) embedded in the DoHFW will be responsible for technical, fiduciary and safeguards management, as well as monitoring and evaluation. The project will finance: (i) establishment of a PMU within the Directorate of Health Services along with the necessary technical staff and consultants; (ii) the incremental costs incurred by government agencies in implementing project-financed activities; (iii) establishment of expert groups to provide technical support to the 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 levels.

Under Component 2, the project will finance: (a) hiring of consultant support; (b) minor civil works in compliance with ESS requirements; (c) goods and equipment; (d) Trainings; (e) hiring of additional human resource (such as hospital managers and other technical staff); and (f) hiring of non-consultancy services for clinical and non-clinical works.

**Component 3: Increasing coverage and utilization of health services (US\$ 5 million).** This component will invest in increasing the coverage of the state health insurance program, strengthen primary care through Health and Wellness Centers, and strengthen community-level interventions and engagement. This will be achieved through: (a) Assessment and strengthening of the Megha Health Insurance Scheme, including its organization and operation systems to improve coverage; and (b) Support for innovation pilots in health and wellness centers and community-level interventions.

- (a) Improving coverage and strengthening institutional capacity of the Megha Health Insurance Scheme. The scheme will be strengthened to improve population coverage, increase utilization, reduce disparities in seeking benefits, and develop institutional capacity. More specifically, the project will finance strengthening of the scheme design through comprehensive evaluation of processes and service utilization, and review of benefit packages and pricing. It will finance interventions for increasing population coverage and demand for services. These will include community-level interventions, data collection and consultations, for reaching families for enrolment; developing and implementing a communication strategy; and incentives for frontline workers for identifying uncovered households. Organizational infrastructure, systems and capacity, will be strengthened by developing the scheme's management information system; improving operational guidelines and standard operating procedures (such as for empanelment, monitoring and evaluation, anti-fraud management, financial management and fund utilization); building the capacities of hospitals, district and state-level staff to facilitate coverage and operation of the scheme; improving capacities of the scheme's staff, including learning visits; upgrading its office infrastructure; and expanding the toll-free helpline for the scheme.
  - (b) Pilot innovations in Health and Wellness Centers and community-level interventions. The project will support the state in implementing the national Ayushman Bharat strategy for strengthening Health and Wellness Centres, including strengthening capacity to provide an expanded package of services to encompass primary screening, counselling and referrals for NCDs. The project will pilot innovative strategies in in two districts of the state, in select 20

Health and Wellness centers to improve their service delivery through telemedicine and contracting of service management to non-governmental and private organizations.

(c) Innovations to enable gender equity: The project will pilot community-led interventions in an integrated and multi-sectoral approach for women and child development in 100 villages under the selected Health and Wellness Centers. The project will undertake an assessment to identify gender gaps in service delivery and patient experience in select health and wellness centers. This will inform the roll-out of specific parameters to improve the utilization rate amongst women patients, particularly pregnant women. Project investments will provide a roadmap for scaling-up of interventions using government funds, integrating elements of ongoing community interventions supported by the National Health Mission. The component will also support intervention services to survivors of violence against women and children. This will be established on a pilot basis as an out-patient department (OPD) of the hospital, with linkages to legal aid agencies, police stations and shelter homes. The objective of this would be to establish intimate partner violence/domestic violence against women and children as a legitimate public health issue.

Under Component 3, the project will finance: (a) hiring of consultant support: (b) minor civil works: (c) goods and equipment: (d) training: and (e) hiring of non-consultancy services.

**Component 4: Contingent Emergency Response Component (cost US\$0 million)**: Provision of immediate response to an Eligible Crisis or Emergency, as needed.

#### **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.

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 Schedule 3: Prescribed Authority and duties	As per Accreditation requirements, healthcare facilities are required to develop Standard Operating Procedures (SOPs) in the handling of medical solid, liquid and radioactive wastes.

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
			Schedule 4: Label of containers, bags and transportation of Bio-Medical waste	SOPs for BMWM activities especially handling, storage, transportation and treatment of BMW., so as to comply with the requirements of the rules.
			The provisions under the rules provide for both solid and liquid medical wastes.	Meghalaya at present do not have a common treatment facility for collection, treatment and
			Liquid waste should be treated with 1% hypochlorite solution before discharge into	disposal of BMW from different facilities mainly up to CHC level.
			sewers. 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.	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. There is a need for continuous training of the staff at the health facilities regarding the BMWM.
3		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).	and upwards. Given the range of electronic equipment at the HCFs and their consumables, it becomes important to adhere
				Training regarding the disposal of e-waste is critical and procedures for collection and reported annually.

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	1	in generation of some quantities of hazardous waste, mostly in the form of waste/used oil
				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	<b>.</b>	These rules govern the used lead-acid batteries wastes to address their safe dismantling and disposal of components in environmentally safe manner.	
5	Municipal Solid Waste (Management and Handling) Rules, 2000	Pollution Control	These rules govern the safe collection, transportation, treatment and disposal of solid general wastes generated from the facilities,	

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
6	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.
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	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,	project staff especially during this period of COVID pandemic. The ordinance includes provisions for

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
	The Epidemic Diseases (Amendment) Ordinance, 2020		2020. The Ordinance amends the Epidemic Diseases Act, 1897. The Act provides for the prevention of the spread of dangerous epidemic diseases.	aggression during management of Covid-19
			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.	
9	The Water (Prevention & Control of Pollution) Act 1974.	e .	Provisions are largely to prevent air and water pollution by not releasing untreated effluents and harmful emissions from Generator sets and	Applicable Relevant to all HCFs and Central Biomedical
	The Air (Prevention & Control of Pollution) Act 1981.		incinerators. Most provisions are already discussed under the Bio-Medical Waste Rules.	Waste Treatment Facilities (where established).
	Environment Protection Act (and Rules), 1986 and 1996		The Act mandates to control and abate water pollution.	Relevant, based on the project scale of minor civil works and BMWM activities.
	Environment (Protection) Second Amendment Rules 2002		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.	
10	Environmental Impact Assessment (EIA) Notification 2006 & and subsequent	L	Based on The EIA Notification 2006 and it subsequent amendments, Water supply project	1 5 1

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
	amendments, including Draft Notification March 2020		is exempt from obtaining prior Environmental Clearance from the regulatory authorities.	
11	CPCB Guidelines for CBWTFs (2003). CPCB Guidelines for BMW Incinerators (2003). Draft Guidelines for Biomedical Waste Incinerator, 2017 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.	Meghalaya State Pollution Control Board/ DoHFW	Any activities from BMW temporary storage, transportation, disposal/treatment requires valid license. 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. 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. 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,	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

S. No	Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
12	Meghalaya Air (Prevention and Control of Pollution) Rules, 1988	•••	The Rules state for the need to seek consent from the board on any activity on air pollution control area.	Relevant. 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	Management	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.	
15	Construction Workers' (Regulation of Employment		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	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
			amenities like drinking water, latrines, urinals, crèches, first aid, canteens and temporary 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.	· · ·
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.	

Act/Law	Agency Responsible	Key provisions and purpose	Relevance to the project
•	-	The payment of wages act lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.	will be mandated to provide compliance as
The Child Labour (Prohibition and Regulation) Act, 1986	1	1 1 2	construction or operation works either
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.	access to services in tribal areas and participation of tribal population in the
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	· · ·
	Payment of Wages Act 1936; and Equal Remuneration Act 1976: The Child Labour (Prohibition and Regulation) Act, 1986 Sixth Schedule Areas in the Constitution of India	ResponsiblePayment of Wages Act 1936; and Equal Remuneration Act 1976:Department of Labour and Employment, GoM/ DoHFWThe Child Labour (Prohibition and Regulation) Act, 1986Department of Labour and Employment, GoM/ DoHFWSixth Schedule Areas in the Constitution of IndiaDOHFW	ResponsibleResponsiblePayment of Wages Act 1936; and Equal Remuneration Act 1976:Department of Labour and Employment, GoM/ DoHFWThe payment of wages act lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.The Child Labour (Prohibition and Regulation) Act, 1986Department Labour Employment, GoM/ DoHFWThe Act prohibits employment of children in certain occupation and processes. The Act also specifies conditions of work for children, if permitted to work.Sixth Schedule Areas in the Constitution of IndiaDOHFWThe 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.Right to Information Act, 2005DOHFWProvides a practical regime of right to information under the control of Public Authorities. The act sets out (a) obligations of public

S. No	Act/Law     Agency     Key provisions and purpose       Responsible     Image: Comparison of the second		Relevance to the project	
			citizen to obtain information/disposal of request, etc. (d) provides for institutions such 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.	directorates and most of the health care

# 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.	
2	The Khasi Hills Autonomous District (Khasi Social Custom of Lineage) of 1997		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.	ADC areas. Will also be applicable based on
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.	
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.	

# 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 Env	ironmental and Social Standards
ESS	ESS Objectives	Relevance to the Project
ESS 1 Assessment and Management of Environmental and Social Risks and Impacts	<ul> <li>To identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with the ESSs.</li> <li>To adopt a mitigation hierarchy approach to: <ul> <li>(a) Anticipate and avoid risks and impacts;</li> <li>(b) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels;</li> <li>(c) Once risks and impacts have been minimized or reduced, mitigate; and</li> <li>(d) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.</li> </ul> </li> <li>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.</li> <li>To utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate.</li> </ul>	The project aims at improving quality and utilization of health services through strengthening institutional, financing, human resource, informational technology and community related reform actions. 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

	Table (7): Applicability of World Bank's Env	rironmental and Social Standards
ESS	ESS Objectives	Relevance to the Project
	• To promote improved environmental and social performance, in ways which recognize and enhance Borrower capacity.	<ul><li>impacts to the environment and human health if not managed appropriately.</li><li>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.</li></ul>
ESS 2: Labour and Working Conditions	<ul> <li>To promote safety and health at work</li> <li>To promote the fair treatment, non-discrimination and equal opportunity of project workers.</li> <li>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.</li> <li>To prevent the use of all forms of forced labor and child labor.</li> <li>To support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law.</li> <li>To provide project workers with accessible means to raise workplace concerns.</li> </ul>	
ESS 3: Resource Efficiency & Pollution Prevention and Management	<ul> <li>To promote the sustainable use of resources, including energy, water and raw materials.</li> <li>To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities.</li> <li>To avoid or minimize project-related emissions of short and long-lived climate pollutants.</li> </ul>	Relevant. 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 may act as

	Table (7): Applicability of World Bank's Environmental and Social Standards				
ESS	ESS Objectives	Relevance to the Project			
	<ul> <li>To avoid or minimize generation of hazardous and non-hazardous waste.</li> <li>To minimize and manage the risks and impacts associated with pesticide use.</li> </ul>	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. Since significant investments are not envisaged through the project in this regard, an investment impact assessment to account for GHG analysis and benefits will be done during project implementation, if required.			
ESS 4 Community Health and Safety	<ul> <li>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.</li> <li>To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams.</li> <li>To avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials.</li> <li>To have in place effective measures to address emergency events.</li> <li>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.</li> </ul>	<b>Relevant.</b> 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. Given the scale and magnitude of construction limited to minor civil works, no labor influx is anticipated.			
ESS 5: Land Acquisition, Restrictions on Land Use and	<ul> <li>To avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives.</li> <li>To avoid forced eviction.</li> </ul>	<b>Not Currently Relevant.</b> 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			

	Table (7): Applicability of World Bank's Env	ironmental and Social Standards		
ESS	ESS Objectives	Relevance to the Project		
Involuntary Resettlement	<ul> <li>To mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: <ol> <li>providing timely compensation for loss of assets at replacement cost</li> <li>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.</li> </ol> </li> <li>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.</li> <li>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.</li> <li>To ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected.</li> </ul>			
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	<ul> <li>To protect and conserve biodiversity and habitats.</li> <li>To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity.</li> <li>To promote the sustainable management of living natural resources.</li> <li>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.</li> </ul>	Not Currently Relevant. 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.		

	Table (7): Applicability of World Bank's Env	ironmental and Social Standards
ESS	ESS Objectives	Relevance to the Project
ESS7: Indigenous peoples	<ul> <li>To ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples.</li> <li>To avoid adverse impacts of projects on Indigenous Peoples, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts.</li> <li>To promote sustainable development benefits and opportunities for Indigenous Peoples in a manner that is accessible, culturally appropriate and inclusive.</li> <li>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.</li> <li>To obtain the Free, Prior, and Informed Consent (FPIC) of affected Indigenous Peoples in the three circumstances described in this ESS.</li> <li>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.</li> </ul>	Meghalaya is a Scheduled VI state under the Indian Constitution with 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. 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.
ESS 8 Cultural Heritage	<ul> <li>To protect cultural heritage from the adverse impacts of project activities and support its preservation.</li> <li>To address cultural heritage as an integral aspect of sustainable development.</li> <li>To promote meaningful consultation with stakeholders regarding cultural heritage.</li> <li>To promote the equitable sharing of benefits from the use of cultural heritage.</li> </ul>	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.

	Table (7): Applicability of World Bank's Env	ironmental and Social Standards
ESS	ESS Objectives	Relevance to the Project
ESS 9 Financial Intermediaries	<ul> <li>To set out how the FI will assess and manage environmental and social risks and impacts associated with the subprojects it finances.</li> <li>To promote good environmental and social management practices in the subprojects the FI finances.</li> <li>To promote good environmental and sound human resources management within the FI.</li> </ul>	
ESS 10 Stakeholder engagement and information disclosure	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	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, Jayantia Hills ADC etc.), community groups, local governance institutions, elected representatives and public at large. 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.

# 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 <a href="https://www.mohfw.gov.in/">https://www.mohfw.gov.in/</a>). Since the outbreak of COVID19, India has proactively taken several measures for containing the disease which are in line with guidance form 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 form 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. 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 incudes 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
- <u>Recommendations to Member States to Improve Hygiene Practices</u>, issued on April 1, 2020
- <u>Severe Acute Respiratory Infections Treatment Center</u>, issued on March 28, 2020
- Infection prevention and control at health care facilities (with a focus on settings with limited resources), issued in 2018
- <u>Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19)</u>, issued on March 18, 2020
- Laboratory Biosafety Manual, 3rd edition, issued in 2014
- <u>Laboratory testing for COVID-19, including specimen collection and shipment</u>, issued on March 19, 2020
- <u>Prioritized Laboratory Testing Strategy According to 4Cs Transmission Scenarios</u>, 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 <u>COVID-19</u>, 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
- <u>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</u>
- <u>Oxygen sources and distribution for COVID-19 treatment centers</u>, issued on April 4, 2020
- <u>Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19</u> <u>Preparedness and Response</u>, 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
- <u>Operational considerations for case management of COVID-19 in health facility and community</u>, issued on March 19, 2020
- <u>Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)</u>, 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

- <u>Technical Note: Public Consultations and Stakeholder Engagement in WB-supported</u> operations when there are constraints on conducting public meetings, issued on March 20, 2020
- <u>Technical Note: Use of Military Forces to Assist in COVID-19 Operations</u>, issued on March 25, 2020
- ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects, issued on April 7, 2020
- <u>Technical Note on SEA/H for HNP COVID Response Operations, issued in March 2020</u>
- 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 system<sup>4</sup>, 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 certificate<sup>5</sup>.

# 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).
- 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

<sup>&</sup>lt;sup>4</sup> Government of India. 2019a.

<sup>&</sup>lt;sup>5</sup> Government of India. 2019a.

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 Sate 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 heath 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 ion Meghalaya



# 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.

Sl. No.	Indicators	DH	СНС	РНС	Total
1	Segregation Being Done	100%	100%	100%	100%
2	Containers/ Bins Available	100%	100%	100%	100%
3	Colour coded containers as per BMWM 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

### 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,

SI.	Indicators	DH	СНС	РНС	Total
No.	Indicators	DII	CIIC	Inc	10141
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%
	Total Sample	2	2	12	16

### 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 Khashi 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.

SI. No.	Indicators	DH	СНС	РНС	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

# 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.

SI. No.	Indicators	DH	СНС	РНС	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

# 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					
Sl. No.	Indicators	DH	СНС	РНС	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%	

Table (12): Other Environmental Aspects					
SI. No.	Indicators	DH	СНС	РНС	Total
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

# 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					
SI. No.	Indicators	DH	СНС	РНС	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 water for patients	100%	100%	83%	88%	

Table (13): Infrastructure Condition and Access					
SI. No.	Indicators	DH	СНС	РНС	Total
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				
	e: Primary Study, July/August 2020 * 25% on Rented/ leased land				



# 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 liked 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 activist (ASHA)- Auxiliary nurse midwife (ANM) Booklet, Flip and answer book, Kalyani Poster, Leaflet	

]	Table (14): IEC Materials Available at NHM Site for Different Thematic Areas				
S.No.	Type of Media	Thematic Area			
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			
		<ul> <li>SBA presentations:</li> <li>1b Infection Prevention, 2a Quality Antenatal Care,</li> <li>2b Antenatal Check-Up History taking, 2d Antenatal</li> <li>Check-Up Abdominal Examination, 3a Antenatal</li> <li>Care Laboratory Investigations, 3b Antenatal Care</li> <li>Interventions, 3c.i Antenatal Care Counselling, 3d</li> <li>Intrapartum Care Assessment, 4 Intrapartum Care</li> <li>during labour, 5b Resuscitation of New born, 5c</li> <li>Postpartum Care, 6b Quality of care</li> </ul>			

# 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	<b>Risks/ Impacts</b>	Proposed Mitigation Measures		
Component 1: Interna	l performance management to improve ecosysten	n of health service delivery			
Improved service delivery and quality at Health facility level	<ul> <li>State and subsidiary departments – focus on Policy reforms</li> <li>Incentive strategy will be designed and used to promote improving the utilization and quality of health services and practices</li> <li>Define indicators for performance monitoring</li> <li>Signing of Internal performance Agreements (IPAs) at three levels – i.e. State/ Directorate level, District level, and CHC/PHC level</li> <li>Strengthening monitoring, coordination and timely supply of resources</li> <li>Improving the MHIS to capture information aiding the performance monitoring mechanism</li> <li>Developing quality scoring and indexing system in relation to key functions of the institution/ facility</li> </ul>	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>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</li> </ul>		

	Table (15): Environment a	and Social Risks and Impacts	
Sub-Components/ Areas	Main Activities	<b>Risks/ Impacts</b>	Proposed Mitigation Measures
	<ul> <li>Capacity building of hospital and health facility staff on techno-managerial skills and aligning incentives to perform better</li> <li>Piloting performance-based incentives and rewards</li> <li>Reinforcing local-level accountability mechanism</li> <li>Performance verification mechanism – both internal and external</li> </ul>	• 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.	<ul> <li>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.</li> <li>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.</li> <li>BMWM to be strengthened as per measures elaborated in BMWM sub-component</li> </ul>
Component 2: Improvi	ing Management and Accountability Systems		
Improvement of planning, management, and monitoring functions	<ul> <li>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</li> <li>Project Management Agency to be contracted and placed to support PMU</li> </ul>	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.	• 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

Table (15): Environment and Social Risks and Impacts						
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures			
	<ul> <li>knowledge exchange to be planned and undertaken with other states in the region on technical and system development innovations and reforms</li> <li>Integration of existing information systems for better management and oversight</li> </ul>		on E&S activities throughout the life of the project .			
Development of Human Resource for health	<ul> <li>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</li> <li>Development of capacity building plan with timeline supporting long-term strategies for health cadres to deliver continuous medical education</li> <li>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</li> <li>Infrastructure improvement of government nursing schools for upgrading from GNM to BSc colleges</li> </ul>	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Training need assessment (TNA) of HCF staffs on BMWM followed by training of HCF staffs on BMWM.</li> <li>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.</li> <li>Training on conducting Screening and applying the mitigation measures to HCF incharges by PMU E&amp;S specialists.</li> <li>Screening of sub-projects to avoid any land acquisition or involuntary resettlement and to rule-out any adverse impacts</li> </ul>			

	Table (15): Environment and Social Risks and Impacts					
Sub-Components/ Areas	Main Activities	<b>Risks/ Impacts</b>	Proposed Mitigation Measures			
Strengthening of procurement and supply chain management	<ul> <li>Strengthening procurement and supply chain management (PSM) system including organizational strengthening, business process reengineering, expanding warehouses, inventory monitoring capacity and PSM information system.</li> <li>Capacity building for improvement of PSM at state and sub-state level</li> <li>Need-based retrofitting and renovations of warehouses to improve storage capacity</li> </ul>	<ul> <li>No specific social risk associated with this activity</li> <li>Mechanism for disposal of expired medicine requires standard protocol to be followed.</li> <li>While use of mercury based equipment are suggested to be phased out as per GOI guidance, it is still being used in the state.</li> </ul>	<ul> <li>related to resettlement of squatters/ non-title holders.</li> <li>Safety norms as per GoI/ GoM to followed for any repair, renovation and/or retrofitting activities.</li> <li>SOP to be prepared for notification and disposal of expired medicine.</li> <li>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.</li> </ul>			
Strengthening of biomedical waste management	<ul> <li>Support implementation of the BMWM plan</li> <li>Investments in necessary infrastructure, equipment and training</li> <li>Capacity building of staff on BMWM and immunization of health care providers</li> <li>IEC</li> </ul>	• 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.	<ul> <li>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.</li> <li>Building capacity of HCF staffs on bio-medical waste</li> </ul>			

Table (15): Environment and Social Risks and Impacts					
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures		
		Also, there is potential long-term risk could be associated with poor operations and maintenance of waste treatment and disposal technology.	<ul> <li>management – both solid and liquid waste.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>Checklist and SOP for infection control measures to be developed.</li> <li>Health and safety requirements to be included in the service contract of various service providers e.g. sanitation</li> </ul>		

Table (15): Environment and Social Risks and Impacts				
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures	
			<ul> <li>services, bio-medical services, and laboratory services etc.</li> <li>As part of the bio-medical waste management plan, effluent Treatment Plants (ETP) should be provided to treat the washing and other wastewater generated from larger health facilities.</li> <li>For smaller health facilities, wastewater from key generating areas shall be neutralized and / disinfected near the source and discharged externally in safe manner.</li> <li>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.</li> <li>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 BMWM Rules, 2016.</li> <li>To ensure compliance and facilitate the implementation of the regulation on Bio- Medical</li> </ul>	

	Table (15): Environment and Social Risks and Impacts			
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures	
			<ul> <li>Waste Management Rules, the following mitigation actions should be in place:</li> <li>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.</li> <li>b. The requirements for transfer and reporting of medical wastes within the HCF and between the disposal center.</li> <li>c. Emergency mitigation measures for accidents/ leakages/ spills and release of medical waste</li> <li>d. Protection/OHS for workers during the sorting, collection, transportation and temporary storage.</li> <li>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.</li> </ul>	

	Table (15): Environment and Social Risks and Impacts				
Sub-Components/ Areas	Main Activities	<b>Risks/ Impacts</b>	Proposed Mitigation Measures		
			<ul> <li>f. In all health facilities, segregation of liquid chemical wastes at the source, pretreatment and neutralization before mixing with other effluents from the facilities will be carried out, as per BMWM Rules.</li> <li>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.</li> <li>The project will also provide capacity building support to ensure occupational safety measures are followed by healthcare staff in facilities.</li> <li>Follow WHO and MOHFW guidance in management of Covid-19 waste.</li> </ul>		
Improving coverage and strengthening institutional capacity of the Megha Health	• Improve population coverage, increase utilization, reduce spatial disparities in seeking benefits, and strengthen the institutional capacity of the Insurance Society	• No specific environmental risk associated with this activity.	• The SBCC strategy for the project to incorporate communication on mechanism to access and take benefit of the MHIS by eligible population		

Table (15): Environment and Social Risks and Impacts					
Sub-Components/ Areas	Main Activities	<b>Risks/ Impacts</b>	Proposed Mitigation Measures including marginalized and vulnerable population.		
Insurance Scheme (MHIS)	<ul> <li>Developing comprehensive communication strategy and implementation to cover unreached population</li> <li>Strengthening IT infrastructure and MIS for scheme and expanding the tollfree helpline for the scheme</li> <li>Strengthening capacity including improving operational guidelines, SOPs, capacity building of hospital, district and state level staff on SOPs and protocols</li> <li>Upgrading the office infrastructure of the MHIS</li> </ul>	• This will help support the coverage of population under the MHIS. However, in order to ensure coverage of marginalized and vulnerable population, it requires good outreach to them in building awareness about the scheme.			
Component 3: Improve	e health service provision and quality				
Improvements in the delivery and quality of health services at district hospital, CHC and PHC	<ul> <li>Quality certification (NQAS) of health facilities</li> <li>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</li> </ul>	<ul> <li>Overall, the activities will have positive environmental and social impact by improving the quality of basic infrastructure facilities in HCFs.</li> <li>Quality certification process involves improving the BMWM and other environmental hygiene, so it will be beneficial.</li> <li>The project does not support any large-scale construction and is restricted to minor repair and</li> </ul>	<ul> <li>Set up mechanism for building and sustaining BMW management, sanitation and hygiene standards.</li> <li>SOP to be prepared for upkeep and O&amp;M of equipment installed and related OHS practices.</li> <li>Screening to be done for infrastructure upgradation of HCFs/ other project facilities e.g. Nursing school/ college to avoid</li> </ul>		

Table (15): Environment and Social Risks and Impacts				
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures	
	<ul> <li>Retrain a pool of trainers to undertake facility wise trainings and mentoring along with hands-on approach for implementing NQAS</li> <li>Making health facilities environmentally friendly and energy efficient – use of solar power, rainwater harvesting and landscape management</li> </ul>	renovations within the existing footprint of the facilities, and hence no land acquisition or need for any additional land is anticipated.	<ul> <li>any land acquisition or involuntary resettlement.</li> <li>Screening will also be conducted to rule-out any adverse impacts related to resettlement of squatters and non-title holders.</li> </ul>	
Pilot innovations in Health Wellness Centres (HWCs)	<ul> <li>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</li> <li>Fill gaps in human resources, infrastructure, and equipment necessary for upgrading targeted HWC facilities</li> <li>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</li> </ul>	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> <li>Preparation of SBCC strategy shall address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HWCs.</li> <li>SOP to be prepared for upkeep and O&amp;M of equipment installed and related OHS practices.</li> </ul>	
Pilot Community level intervention for health and nutrition services	• Pilot community led multisectoral approach for women and child development in coverage areas of targeted HWCs.	No specific environmental and/or social risks associated		

Table (15): Environment and Social Risks and Impacts				
Sub-Components/ Areas	Main Activities	Risks/ Impacts	Proposed Mitigation Measures	
	<ul><li>Capacity building of community structures</li><li>Comprehensive SBCC strategy</li></ul>			
<b>Component 4: Conting</b>	ent Emergency Response Component			
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 o 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> <li>Health Directorates         <ul> <li>Health Directorates</li> <li>and Health facility's Internal</li> </ul> </li> <li>Performance Management         <ul> <li>(IPM) is new to Meghalaya –</li> <li>both HCF staffs as well as</li> <li>community among other</li> <li>stakeholders may not fully</li> <li>understand the efficacy of it</li> <li>and hence need awareness</li> <li>creation for better outcome</li> <li>including enhanced trust in</li> <li>the system and increased</li> <li>footfalls.</li> <li>With increased</li> <li>footfall, there will be an</li> <li>incremental increase solid,</li> <li>biomedical and liquid waste</li> <li>streams (chemical reagents,</li> <li>wastewater effluents). And,</li> <li>if waste streams are not</li> <li>adequately treated or</li> <li>disposed, there could be</li> </ul> </li> </ul>	<ul> <li>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.</li> <li>Project specific Social and Behaviour change communication (SBCC) strategy to be prepared and implemented incorporating communicating performance management system and its results.</li> <li>BMWM to be strengthened as per measures elaborated in BMWM sub-component.</li> </ul>	<ul> <li>HCFs in backward and remote areas/ districts are also selected for IPA in proportionate manner.</li> <li>SBCC strategy and action plan prepared and adopted by the PMU/DOHFW.</li> <li>IPA performance rating shall also include BMWM related indicators.</li> </ul>	PMU-DOHFW	Year-1 and continue throughout the project life

Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline		
	impacts/ contamination to surrounding soil, water and air environments and on nearby communities.						
Strengthening planning, management, and monitoring functions	• The risk emerges from not having any dedicated environmental or social specialist in DOHFW to support the program.	<ul> <li>An Environmental specialist with experience on BMWM, 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&amp;S activities throughout the project life.</li> <li>Monitoring of BMWM system in the facilities shall be an integral part of Quality Assurance and shall be a continuous activity at different levels of health system functioning.</li> <li>The Results framework intermediate indicator directly related to bio medical waste shall be</li> <li>"Percentage of facilities having improved bio medical waste score/index. (Percentage)". The</li> </ul>	<ul> <li>Placement of Environmental specialist and Social Development Specialist in PMU.</li> <li>Percentage of facilities having improved bio medical waste score/index. (Percentage). The performance of the facilities on BMWM shall be assessed through two criteria indices: i.e. Biomedical waste Management Index and Hand Hygiene Index.</li> </ul>	PMU-DOHFW	Within Six months of project being effective		

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
Development of Human Resource for	• Infrastructure improvement of government nursing schools for	<ul> <li>performance of the facilities on BMWM shall be assessed through two criteria indices:</li> <li>Biomedical waste Management Index and Hand Hygiene Index.</li> <li>Training need assessment (TNA) of HCF staffs on BMWM followed by training of HCF staffs</li> </ul>	• TNA conducted and informed training/ capacity development program for	PMU-DOHFW	TNA in year-1 followed by annual training			
health	<ul> <li>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 footprint of the facilities, and hence no land acquisition or need for any additional land is anticipated.</li> <li>Though adequate human resources and capacity building across the implementation chain will have positive E&amp;S impact, provided they are sensitized with E&amp;S issues and have</li> </ul>	<ul> <li>on BMWM.</li> <li>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.</li> <li>Training on conducting Screening and applying the mitigation measures to HCF incharges by PMU E&amp;S specialists.</li> <li>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.</li> </ul>	<ul> <li>BMWM.</li> <li>Training modules and training calendar incorporates training on BMWM, OHS measures, and exposure visits to other states with good practices.</li> </ul>		calendar over the project life Screening of sub-projects before construction			

	Table (16): Environment and Social Management Plan (ESMP)						
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline		
	<ul> <li>capacity to apply mitigation measures as per ESMF.</li> <li>Most of the HCFs and Dire</li> </ul>	• 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> <li>No standard protocol for disposal of expired medicines.</li> <li>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 - which makes it mandatory for the signatory countries.</li> </ul>	<ul> <li>SOP to be prepared for notification and disposal of expired medicine.</li> <li>SOP / guidelines to be prepared for purchase of environmentally safe chemicals and equipment.</li> <li>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.</li> </ul>	<ul> <li>SOP in place for phasing out mercury based equipments.</li> <li>No mercury-based equipment procured.</li> </ul>	PMU-DOHFW	SOP within six month from project effectiveness. Annual monitoring during project implementation		
Strengthening of Biomedical waste management system	<ul> <li>Inadequate biomedical waste management capacity.</li> <li>Given if waste streams (chemical reagents, wastewater effluents) are not adequately treated or disposed, there could be impacts/ contamination to surrounding soil, water and</li> </ul>	<ul> <li>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.</li> <li>Building capacity of HCF staffs on bio-medical waste management – both solid and liquid waste.</li> </ul>	<ul> <li>Waste Characterization study conducted covering different types of HCFs and inform measures required to plug gaps.</li> <li>Formation status of State and District Advisory Committee for the management of BMWM.</li> </ul>	PMU-DOHFW/ HCF	Waste Characterization Study completed within 6 months of project being effective.		

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
	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.	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>Checklist and SOP for infection control measures to be developed.</li> <li>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.</li> <li>Effluent Treatment Plants (ETP) should be provided to treat</li> </ul>	<ul> <li>Inventory level of functional BMWM equipments and resource material at HCF</li> <li>Filing of necessary reports by HCFs in due format as per BMWM rule 2016.</li> <li>Occupational health and safety provisions at HCFs and their implementation e.g. PEP availability, immunization status of health functionaries etc.</li> <li>Incidents and accidents monitoring reports filed regularly.</li> </ul>		Year-1 for strengthening measures. Continue throughout the project life			

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
		<ul> <li>the washing and other wastewater generated from larger health facilities.</li> <li>For smaller health facilities, wastewater from key generating areas shall be neutralized and / disinfected near the source and discharged externally in safe manner.</li> <li>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.</li> <li>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 BMWM Rules, 2016.</li> <li>To ensure compliance and facilitate the implementation of the regulation on Bio- Medical Waste Management Rules, the following mitigation actions should be in place:</li> <li>Labeling of waste containers as per specifications. Segregation of wastes near to their</li> </ul>						

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
		<ul> <li>source of generation, transportation to designated storage area within the facility.</li> <li>The requirements for transfer and reporting of medical wastes within the HCF and between the disposal center.</li> <li>Emergency mitigation measures for accidents/ leakages/ spills and release of medical waste</li> <li>Protection/OHS for workers during the sorting, collection, transportation and temporary storage.</li> <li>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.</li> <li>In all health facilities, segregation of liquid chemical wastes at the source, pretreatment and neutralization before mixing with other effluents from the facilities will be carried out, as per BMWM Rules.</li> </ul>						

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
Bio-medical waste management, during COVID-	Risk of mixing of Covid-19 biomedical waste with other medical and general waste	<ul> <li>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.</li> <li>The project will also provide capacity building support to ensure occupational safety measures are followed by healthcare staff in facilities.</li> <li>For further details refer Generic BMWMP in ANNEX III.</li> <li>Follow WHO and MOHFW guidance in management of Covid- 19 waste.</li> </ul>	Audits reports of sample facilities for adherence to the Covid-19 guidelines.	PMU-DOHFW/ HCF	With immediate effect during Covid-19 pandemic time			
19 situation Management of	Health facilities in	Waste characterization	• SOPs developed and	PMU-DOHFW/	SOPs to be			
other wastes from health facilities	<ul> <li>the process of healthcare</li> <li>delivery generate large</li> <li>amount of plastics,</li> <li>electronic wastes, used</li> <li>batteries and general waste</li> <li>e.g. paper, food leftovers etc.</li> <li>Plastic is able to</li> <li>persist for long in the</li> </ul>	<ul> <li>study shall be conducted at the beginning of project</li> <li>implementation, to identify such wastes along with the BMW and an estimate of their quantities</li> <li>generated on an average basis.</li> <li>The requirements under specific applicable regulations for</li> </ul>	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.		developed within 6 months of project effectiveness. Year-1 for strengthening measures.			

	Table (16): Environment and Social Management Plan (ESMP)						
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline		
	<ul> <li>environment and poses risks to the environment, as well as uses up natures petroleum resources during its production.</li> <li>Electronic wastes generated from use of computers, mobiles, monitors etc in the facilities also consume natural resources e.g. petroleum- based plastic, metals etc. and pose occupational health and safety risks during dismantling activities and environmental pollution.</li> <li>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.</li> <li>General waste e.g. paper and plant items e.g. dry leaves, leftover food waste etc. poses risk of multiplying the infectious</li> </ul>	<ul> <li>the wastes shall be identified and procedures for their handling, treatment and disposal shall be developed, to comply with the rules.</li> <li>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</li> <li>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.</li> <li>SoP for purchase of Mercury free equipment e.g. B.P. apparatus, thermometers, dental amalgams, batteries, etc.</li> <li>SoP for purchase of environmentally safe material and chemicals to be developed and implemented.</li> <li>Protocol for handling and disposal of plastic wastes to approved recycles, approved by Meghalaya Pollution Control Board (MPCB) to be developed and</li> </ul>	• Number of facilities with arrangements for recycling of wastes e.g. plastics, e-waste and batteries waste etc.		Continue throughout the project life		

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
	risks in case such wastes are mixed with biomedical wastes in the health facilities and in their surroundings.	<ul> <li>implemented in accordance with Plastic Wastes</li> <li>Protocol for safe disposal of e-wastes to be developed in consultation with MPCB, as per e- Wastes rules.</li> </ul>						
Improving coverage and strengthening institutional capacity of the Megha Health Insurance Scheme (MHIS)	Inadequate institutional mechanism to access the scheme by marginalized and vulnerable population and lack of awareness may lead to poor utilization of the scheme	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> <li>Risk of inadequate access to healthcare services for people below poverty and in remote locations</li> <li>Lack of accessibility for persons with special needs in existing healthcare facilities</li> </ul>	<ul> <li>Health care providers sensitized towards services to poor and vulnerable including providing psychosocial support where needed</li> <li>All healthcare facilities to be compliant with universal access provisions through retrofitting.</li> <li>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</li> </ul>	<ul> <li>provisions are put in place in project HCFs for differentially abled people.</li> <li>HCF staffs sensitized on provision of inclusive services as part of training and capacity building measures.</li> </ul>		Throughout project implementation			

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
Improvements in the delivery and quality of health services at District hospital, CHC and PHC. Including Quality certification (NQAS).	<ul> <li>Overall, the activities will have positive environmental and social impact by improving the quality of basic infrastructure facilities in HCFs.</li> <li>Quality certification process involves improving the BMWM and other environmental hygiene, so it will be beneficial.</li> <li>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</li> </ul>	<ul> <li>building and sustaining BMW management, sanitation and hygiene standards.</li> <li>SOP to be prepared for upkeep and O&amp;M of equipment</li> </ul>	ANNEX I is conducted prior to any civil work in HCF undergoing for NQAS certification.	PMU-DOHFW/ HCF	As per quality improvement plan			

	Table (16): Environment and Social Management Plan (ESMP)							
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline			
	any additional land is anticipated.							
Pollution management during repair, renovation and retrofitting	Risk of pollution from civil works including construction solid waste, dust, wastewater, noise, lubricants and oils, air emissions from diesel generators	<ul> <li>Use screens or nets to avoid flying debris and dust and use of regular water sprays to suppress dust</li> <li>Hazardous waste separated from nonhazardous waste on site and disposed-off to designated sites</li> <li>Measure and report noise (decibel) levels regularly</li> <li>Manage oil leaks/spills from diesel generators and machineries</li> <li>ESMP for each construction activity to be prepared separately as highlighted by E&amp;S screening.</li> </ul>	and standards as per the guidance in Table (17) for different stages of	Contractor, HCF	During construction			
Labor management for repair, renovation and retrofitting activities especially during Covid- 19 situation	<ul> <li>Though no labor influx anticipated given the small scale of civil work and that too in dispersed locations. Key labor related concerns especially in Covid- 19 situation will include:</li> <li>Workers coming from Covid-19 infected areas</li> <li>Co-workers becoming infected</li> </ul>	<ul> <li>Adequate hand washing and sanitization facilities provided during construction.</li> <li>Consider ways to minimize/control movement in and out of construction areas/site.</li> <li>If workers are accommodated on site, require them to minimize contact with people outside the construction area/site or prohibit them from leaving the</li> </ul>	are sensitized with Covid19 guidance.	Contractor, HCF	During construction			

	Table (16): Environment and Social Management Plan (ESMP)						
Key Area/ Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline		
	<ul> <li>Workers introducing infection into community/general public</li> <li>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</li> <li>Involvement of child labor and/or forced labor</li> </ul>	<ul> <li>contract</li> <li>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</li> <li>Check and record temperatures of workers and other people entering the construction area/site or require self-reporting prior to or on entering</li> <li>Provide daily briefings to</li> </ul>					

	Table (16): Environment and Social Management Plan (ESMP)								
Key Area/ Activities	Potential E&S Risks and Impacts			Responsibilities	Timeline				
		<ul> <li>Sensitization construction workers and health care staffs involved</li> <li>No child labor or forced labor is allowed to work as per the GoI norms and legislation.</li> <li>Setting up gender-sensitive infrastructure such as segregated toilets and well-lit living areas/ camps (if any).</li> <li>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 redressal services including building linkages to One-stop center (where available).</li> <li>Follow Labor Management Plan</li> </ul>							
Occupational Health & Safety (OHS) and Community Health & Safety	Health and safety risks to construction workers and others Sanitary related problem	• 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.	<ul> <li>Site specific action plan is prepared by contractors and reviewed and approved by PMU.</li> <li>Civil work follows the OHS norms and standards as set in the contract.</li> </ul>	Contractor, HCF	During construction				

	Table (16): Environment and Social Management Plan (ESMP)									
Key Area/ Activities	Potential E&S Risks and Impacts Proposed Mitigation Measures		Monitoring	Responsibilities	Timeline					
		<ul> <li>Provide relevant PPE to all workers with onsite toilet and washing facilities</li> <li>Cordon off areas under construction and provide signage to warn of ongoing construction works</li> <li>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</li> <li>The guidance provided in the World Bank Guidance Note for borrowers on ESS4: Community health and safety, to be utilized</li> </ul>								
Pilot innovations in Health Wellness Centres (HWCs)	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	<ul> <li>Preparation of SBCC strategy shall address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HWCs.</li> <li>SOP to be prepared for upkeep and O&amp;M of equipment installed and related OHS practices.</li> </ul>	strategy shall also address the misconceptions and spread awareness about NCDs such as cervical cancer and promote utilization of HCFs for the same.		Within 6 months of project effectiveness					

	Table (16): Environment and Social Management Plan (ESMP)									
Key Area/Potential E&SActivitiesRisks and Impacts		Proposed Mitigation Measures	Monitoring	Responsibilities	Timeline					
	often put the health of their children and male members of the family at a higher priority than their own health.									

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN								
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING				
Planni	ng Phase	I							
1	General Site and Worker Safety	Notification and Worker Safety	<ul> <li>i. The local communities/ public has been notified of the works through appropriate notification and/or at publicly accessible sites</li> <li>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</li> <li>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.</li> <li>iv. Workers' PPE will comply with international good practice (hardhats, as needed masks and safety glasses, harnesses and safety boots)</li> <li>v. Appropriate signposting of the sites will inform workers of key rules and regulations to follow.</li> </ul>	Contractor responsibility at site; PMU to ensure relevant clauses being included in the contract document.	Site level monitoring by HCF In-charge				

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN								
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING				
			vi. Sanitation facilities shall be provided for all site workers.						
2	Physical Cultural Properties	Historic sites	<ul> <li>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</li> <li>ii. Ensure that chance finds provision is activated in case any artefact is encountered in excavation</li> </ul>	Screening will be conducted by the HCF In-charge. DMHO/PMU to facilitate in getting the respective permissions	By DMHO				
Imple	mentation phase			I					
3	General Rehabilitation and/ small civil works Activities		<ul> <li>i. Keep demolition debris in controlled area and spray with water mist to reduce debris dust</li> <li>ii. Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site</li> <li>ii. Keep surrounding environment (sidewalks, roads) free of debris to minimize dust</li> <li>iv. There will be no open burning of construction / waste material at the site</li> <li>v. There will be no excessive idling of construction vehicles at sites</li> </ul>	Contractor responsibility at site; PMU to ensure relevant clauses being included in the contract document	HCF in charge/ Hospital Administrator and DMHO				
4		Noise	<ul> <li>i. Construction noise will be limited to restricted times agreed to in the permit.</li> <li>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.</li> </ul>	Contractor responsibility at site;	HCF in charge/ Hospital Administrator and DMHO				

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN								
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING				
			<ul><li>iii. Materials such as sand, cement, or other fine particles should be kept properly covered. And moistened with sprays of water.</li><li>iv. Unpaved, dusty roads should compact and then wet periodically.</li></ul>	PMJU to ensure relevant clauses being included in the contract document					
5		Drainage	<ul> <li>i. The worksite site will establish appropriate erosion and sediment control measures to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.</li> <li>ii. Keep all drains clear of silt and debris</li> </ul>	Contractor responsibility at site; PMU to ensure relevant clauses being included in the contract document	HCF in charge/ Hospital Administrator and DMHO				
		Construction waste management	<ul> <li>i. Waste collection and disposal pathways and sites will be identified for all major waste types expected from works activities.</li> <li>ii. wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</li> <li>iii. Construction waste will be collected and disposed properly by licensed collectors</li> </ul>	Contractor responsibility at site; PMU to ensure relevant clauses being included in the contract document	HCF in charge/ Hospital Administrator and DMHO				
6	Toxic Materials	Toxic / hazardous waste management	<ul> <li>i. There will be no waste dumping in adjacent areas to the HCF.</li> <li>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</li> <li>iii. The containers of hazardous substances should be placed in leak-proof container to prevent spillage and leaching.</li> </ul>	Hospital Administrator	DMHO and PMU				

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN								
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING				
			<ul><li>iv. The wastes are transported by specially licensed carriers and disposed in a licensed facility</li><li>v. Paints with toxic ingredients or solvents or lead-based paints will not be used</li></ul>						
7		Asbestos Management	<ul> <li>i. If asbestos is located on the project site, the following provisions will apply</li> <li>ii. Mark clearly as hazardous material</li> <li>iii. When possible, the asbestos will be appropriately contained and sealed to minimize exposure.</li> <li>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</li> <li>v. If waste asbestos material is to be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately</li> <li>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).</li> </ul>	Hospital Administrator	DMHO and PMU				
Opera	tions Phase								
8	Disposal of Bio-medical Waste		<ul> <li>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: <ul> <li>a. Special facilities for segregated healthcare waste (including soiled instruments "sharps", and human tissue or fluids) from other waste disposal:</li> <li>Clinical waste: yellow bags and containers</li> </ul> </li> </ul>	HCF in charge/ Hospital Administrator at the facility level; DMHO and PMU for capacity building	DMHO and PMU				

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN							
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING			
			<ul> <li>Sharps – Special puncture resistant containers/boxes</li> <li>Domestic waste (non-organic): black bags and containers</li> <li>Appropriate storage facilities for medical waste are in place</li> <li>c. If the activity includes facility-based disposal, such as burial pits, the appropriate disposal options are in place and operational.</li> <li>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.</li> <li>iii. Build capacity of healthcare workers to manage medical facilities and ensure good technical support in implementing effective waste management system.</li> </ul>	PMU for SOPs				
9	Wastewater Treatmen Systems	t Water Quality	<ul> <li>i. The approach to handling wastewater from larger HCFs (installation or reconstruction) must be approved by a qualified engineer.</li> <li>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</li> <li>iii. Monitoring of new wastewater systems (before/after) will be carried out.</li> </ul>	Hospital Administrator and DMHO	PMU			

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN								
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING				
10	Community Health and Safety	Exposure to hazardous health care waste	<ul> <li>i. Avoid mixing general health care waste with hazardous health care waste to reduce disposal costs;</li> <li>ii. Segregate waste containing mercury for special disposal Management of mercury containing products and associated waste should be conducted as per the CPCB guidelines.</li> <li>iii. Segregate waste with a high content of heavy metals (e.g. arsenic, lead) to avoid entry into wastewater streams</li> <li>iv. Transport waste to storage areas on designated trolleys /carts, which should be cleaned and disinfected regularly</li> <li>v. Separate residual chemicals from containers and remove to leak-proof containers resistant to chemical corrosion effects. Return unused chemicals to supplier</li> <li>vi. Facilities should have permits for disposal of general chemical waste (e.g. sugars, amino acids, salts) to sewer systems.</li> <li>vii. Larger quantities of chemical wastes are to be transported to appropriate facilities for disposal, and not be encapsulated or landfilled.</li> <li>viii. Aerosol cans and other gas containers should be segregated to avoid disposal via incineration and related explosion hazard.</li> <li>ix. HCFs should have impermeable floor with drainage and designed for cleaning / disinfection.</li> <li>x. Treatment Facilities receiving hazardous health care waste should have all applicable permits and capacity to handle specific types of health care waste.</li> </ul>	Hospital Administrator	DMHO and PMU				

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN							
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING			
11	Worker Health and Safety		<ul> <li>i. Development of Facility policies, procedures and protocols (including SOPs), and awareness on infection control policies, supervision and management</li> <li>ii. Trainings should be provided to all healthcare and sanitation workers on use of PPE, handling of infectious materials and wastes (e. g. blood).</li> <li>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.</li> </ul>	at PMU	PMU			
12	Management hygiene within HCF		<ul> <li>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.</li> <li>ii. Toilets should be cleaned whenever they are dirty, and at least twice per day, with a disinfectant used on all exposed surfaces.</li> <li>iii. Water points, with soap and adequate drainage, should be provided for all toilets, and their use 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.</li> </ul>	HCH in charge	DMHO			

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN							
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING			
			v. Posters and other visual information should be used to promote infection control among healthcare workers and patients.					
	Management of Labor for civil work		<ul> <li>i. Adequate hand washing and sanitization facilities at the construction site.</li> <li>ii. Consider ways to minimize/control movement in and out of construction areas/site.</li> <li>iii. If workers are accommodated on site, require them</li> </ul>					
			to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract 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					
			v. Check and record temperatures of workers and other people entering the construction area/site or					
			require self-reporting prior to or on entering vi. Provide daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand					
			<ul> <li>hygiene and distancing measures.</li> <li>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.</li> </ul>					
			<ul> <li>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</li> </ul>					

	TABLE (17): CONSTRUCTION RELATED ENVIRONMENT AND SOCIAL ACTION PLAN								
S.NO	ACTIVITY	PARAMETER	MITIGATION (AS APPLICABLE)	RESPONSIBILITY	MONITORING				
			<ul> <li>ix. Sensitization construction workers and health care staffs involved.</li> <li>x. No child labor or forced labor is allowed to work as per the GoI norms and legislation.</li> <li>xi. Setting up gender-sensitive infrastructure such as segregated toilets and well-lit living areas/ camps (if any).</li> <li>xii. Ensuring safety of women from any sexual exploitation and abuse (SEA) and sexual harassment (SH), sensitizing health care staffs on SEA/ SH.</li> <li>xiii. Follow Labor Management Plan</li> </ul>						

# 6.1 Negative List of Activities under the Project

Project will not support activities that involve high or substantial E&S risks and involve:

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

# 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 III, 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 subproject 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.

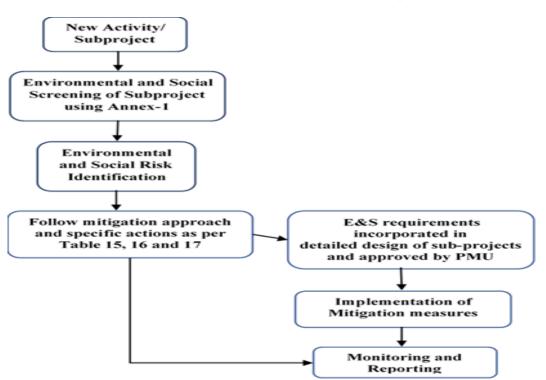


Figure 4: Environmental and Social Management procedure

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 I, 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 get 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 biomedical 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 incharge 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 I. 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/an 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, Jayantia 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	• Intermittent monitoring of BMW of HCEs in all districts	<ul> <li>management, monitoring and reporting.</li> <li>HCFs capacity to be built on in-depth understanding of BMW Rules 2016 (amendment 2018) to comply with the requirements</li> </ul>	

Stakeholder Group Key Issues and Concern		Key Suggestions Received	
Private Waste Collector – (The Meghalaya Disposal and Waste Management Society – A Private Waste collector approved by MSPCB, and Health Dept for collecting medical waste – mainly red bags)	<ul> <li>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.</li> <li>No standard fee for transport expenses and for disposal.</li> <li>In absence of CTF, waste has to be transport to Assam where a private firm receives and dispose in its own plant.</li> <li>Lack of Waste segregation during collection from HCFs.</li> </ul>		
Meghalaya Medical Services Association	<ul> <li>IPHS norms are compromised in terms of human Resource, which impacts quality of services</li> <li>Medical personnel serving in difficult areas do not receive any incentives or additional support</li> <li>Quality assurance is hardly done at HCF level</li> <li>There are HCFs that are neglected for an extensive period of time.</li> <li>There are well performing HCFs that continue to receive same funding (limited scope for innovation and expansion)</li> </ul>	<ul> <li>IPHS norms need to be understood and uniformly applied</li> <li>Diagnostic equipment/ services required in remote HCFs.</li> <li>HCFs in rural areas - DHs, CHCs, should be equipped with screening/ testing equipment for diagnosis and treatment.</li> <li>Living quarters have to be upgraded if Medical Officers and HCF staff have to perform efficiently.</li> </ul>	
Health Care Facilities - District Hospitals, CHCs, PHCs and UHCs.	<ul> <li>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</li> <li>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</li> </ul>	<ul> <li>Districts should be given more flexibility in managing projects, programmes through the HCFs. And utilisation reports to be submitted by HCFs.</li> <li>Basic infrastructure needs repair, renovation and upgradation including for living quarters and with decent power management in HCFs for improving services.</li> </ul>	

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation			
Stakeholder Group	Key Issues and Concern	Key Suggestions Received	
	<ul> <li>HCFs in remote areas have become used to the seasonal shifting or stopping of specific services for repair.</li> <li>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.</li> </ul>	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	
	• There are no facilities for treatment of drinking water in many HCFs	• Filling human resource gaps is important to serve better. Also, in-service training system needs to be improved for health care providers.	
	• 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	• Online data sharing/ documentation indenting	
	• 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.	bad network connectivity – any effort in improving network connection can hugely help in accessing the	
	<ul> <li>Many villages under HCFs are not fully connected by roads to the facilities – especially in remote areas</li> <li>Single ambulance in the HCFs especially in PHCs are not</li> </ul>	community it can address issue of institutiona	
	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.	<ul> <li>RKS membership should be inclusive and request capacity building in terms of understanding their</li> </ul>	
	• 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		

	Table (19): Key Issues and Concerns, and Suggestions voiced during consultation			
Stakeholder Group	Key Issues and Concern	Key Suggestions Received		
	resulted in most CHCs inability to get their Operation Theatre functioning. Also, inadequate staffing poses challenge across the HCFs.			
	• 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.			

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation			
Stakeholder Group	Key Issues and Concern	Key Suggestions Received	
Rogi Kalyan Samiti (RKS) Members (Bhaitbari PHC, Dangar PHC, Madan Maroid PHC)	• 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 with time and s/he could barely attend the meetings or visit the RKS and the HCF regularly.	<ul> <li>Include RKS members in planning, review/ update and project implementation meetings.</li> <li>Role and responsibility of RKS need to be reviewed and members need to be made aware of the same.</li> </ul>	
	• 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.		
CBOs/ NGOs (North East Network; Voluntary Health Association of Meghalaya; Grassroot; Jaintia Hills Development Society; Mih Myntdu Community and Social Awareness Association; Akhil Gandhian)	• 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.	• Upgrade to adequate supply of basic amenities such as water, electricity, living quarters to be also upgraded and fit for habitation.	
	• Manpower is usually not present in the Health Facilities as required.	• Community engagement to be enhanced- through public hearing and dialogues.	
	• Institutional deliveries are less due to the inaccessibility of the people to reach the PHC/ CHC on time.	of space, resources for emergency, BMW	
	• 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.	<ul> <li>management etc.</li> <li>HCF staffs need to be oriented in gender concepts, gender-based violence and relevant issues related to gender.</li> </ul>	

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation			
Stakeholder Group	Key Issues and Concern	Key Suggestions Received	
	• At places, RKS can be political in nature (community political dynamics), there is less women participation in these committees (women members who are present are usually silent).	•	
Traditional Tribal Village Headmen	<ul> <li>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.</li> <li>The IEC used for programmes are so difficult to understand and tiresome to read.</li> <li>Remote places, villages in hilly terrain/ slopes face extreme hurdles in getting to health facility. They mostly rely on traditional forms of medicine.</li> <li>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.</li> </ul>	<ul><li>immediate attention.</li><li>Review of essential list of medicines from time to</li></ul>	
Autonomous District Councils – (1) Khasi Hills ADC; (2) Jaintia Hills ADC; (3) Garo Hills ADC	<ul> <li>Substandard system of Bio medical waste management.</li> <li>High incidence of early pregnancies and marriages in the communities, especially in the rural areas.</li> </ul>	Common Bio-medical waste treatment facilities to be promoted.	

Table (19): Key Issues and Concerns, and Suggestions voiced during consultation			
Stakeholder Group	Key Issues and Concern	Key Suggestions Received	
	• Traditional system of medicine is yet to be acknowledged and promoted in a sustained manner.	• 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 certification are genuine and people who seek treatment from them are assured accountability.	
		• Adolescent health needs in-depth understanding and research and should result in implementation of a programme which is suitable to rural and tribal youth.	
Department of Social Welfare (Women and Child	• Networking and linkage with HCFs other than the nearest HCF, yet to be established.	• Training of HCF Staff on gender and gender-based violence needed.	
Development, Social Justice and Empowerment, Tribal Affairs and Minority Affairs)		• 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:

- 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 monitored is 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 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**

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

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

Table (20): Preliminary Strategy for Information Disclosure for the Project						
Project stage	e Target stakeholders List of information to be Methods and disclosed timing propos					
	media representatives; health agencies; others					

# 9 INSTITUTIONAL ARRANGEMENTS, RESPONSIBILITIES AND CAPACITY BUILDING

# 9.1 Institutional Arrangement

The existing DoHFW governance and management structures and departments will be used for project implementation. A Project Steering Committee (PSC) under the Chairmanship of the Chief Secretary will provide oversight of the project. The Committee will also include Principal Secretary, Health and Family Welfare, and Secretaries of other relevant departments. The Committee will oversee project implementation and results and will be responsible for approving and monitoring the annual project plans and budgets and for approving amendments to the Project Operations Manual. The Commissioner and Secretary, Health and Family Welfare, will lead the Project Executive Committee (PEC) to provide regular monitoring and necessary approvals for day-to-day implementation of project activities. Given the results focus of the project, which requires coordinated action by directorates within the DoHFW, the designation of the Commissioner and Secretary, DoHFW, the senior-most official within the department is critical to effective implementation. Given the results focus of the project, which requires coordinated action by directorates within the department is critical to effective 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. A TA provider will be set up to augment the PMU's capacity in administrative and technical areas including environment and social. Technical and knowledge partnerships as well as multi-stakeholder engagement will be established to augment technical capacity of the department.

At the health facility level, the Chief Medical Officer (CMO) will be responsible for environmental and social standards due diligence 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.

The PMU will develop the Operations Manual that will provide guidelines and procedures to be used for implementation of the project. The Operations Manual will also define the scope and technical specification of the project activities along with the monitoring system. The procedures for administrative approvals and financial controls will also be well defined to minimize ambiguity and bring efficiency in implementation of the project.

# 9.2 Monitoring and Evaluation

The DoHFW will lead the results monitoring and evaluation arrangements of the project. Within the DoHFW, the PMU will provide overall monitoring, reporting, benchmarking and evaluation of the targeted health facilities and communities supported by the proposed project. Routine data on the relevant indicators will be collected through the health management information system for all the targeted facilities as per the results framework. For indicators that lie outside the health management information system and health insurance information system, the project will collect data separately. For evaluation of the project's impacts at the facility and household levels, a rapid survey

will be undertaken in 2020-21, followed by surveys at the mid-term and end of the project. The project will provide six-monthly updates on the progress of the project to the World Bank, coinciding with the financial year of the state and will publish an annual report every year, capturing the progress made against the annual plans.

Since BMWM is one of key indicators of Results Framework, routine comparison of the progress of the project, information on the key indicators will be collected through the routine system from the health facilities that are not targeted by the project, to provide consistent internal comparisons to monitor the progress.

Data required for the IPAs will be collected by internal and external verification teams. The qualifications and terms of reference of external verification team should be agreeable to the World Bank. An independent third-party agency will be contracted to counter verify the IPA results at a mutually agreed periodicity (every six months). This third-party assessment will facilitate taking corrective actions and appropriate administrative steps to address the issues of nonperformance and good performance and measures to reduce the reporting gaps including financial disincentive measures for the IPAs.

The project will invest in systematic documentation of the investments from the early months of intervention and develop various knowledge products. In addition, the project will invest in documenting innovations which includes the internal contracting, results base financing, Clinical Vignettes, community interventions and quality improvement investments using in-house resources. These outputs will be disseminated widely, using knowledge exchange platforms in India and globally.

**Special studies.** Special studies will be undertaken to augment the project implementation, which includes infrastructure assessment and review of pilot initiatives toward RBF. The project will invest in systematic documentation of the investments from the early months of intervention to document the qualitative aspect of the project and develop knowledge products. In addition, the PMU will produce quarterly project progress reports and annual progress reports to be placed in the state government's website.

**Evaluation.** Based on the available information, the baseline data is capturing for the PDO and intermediate indicators. The detail facility level baseline including process and output level data will be collected through a rapid survey in FY20/21. Early midterm project appraisal will be undertaken after two years of project implementation to provide adequate time for course corrections and improvements if necessary. Project indicator targets will be evaluated at the project midterm consistent with the project design and calibrated as needed. The end-term appraisal will be undertaken in the early periods of the final year of the project. In addition, the project will invest in undertaking evaluation of the innovations which include internal contracting, RBF, clinical vignettes, community interventions, and quality improvement investments. These study findings will be disseminated widely, sharing the knowledge with other states.

# 9.3 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

# 9.4 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.

Table (21): Indicative Budget for ESMF Implementation					
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					

# 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	Due diligence/ Actions	
		Yes	No	Category		
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 <sup>6</sup> .	
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.	
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.	

<sup>&</sup>lt;sup>6</sup>Ancient 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	An	swer	Risk Category	Due diligence/ Actions
		Yes	No		
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 <sup>7</sup> 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? <sup>8</sup> Increase in dust and noise from demolition and/or construction Generation of construction waste Impacts on accessibility to the facility Excavation impacts and soil erosion Increase sediment loads/wastewater discharges in receiving water Removal and disposal of toxic and/or hazardous substances <sup>9</sup> 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 appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)?			Moderate	If no, follow ESMP as per Table (16 and 17) of this report.

<sup>&</sup>lt;sup>7</sup> 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.

<sup>&</sup>lt;sup>8</sup> 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.

<sup>&</sup>lt;sup>9</sup>Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

Sl.No.	Key Question	Answer Risk Yes No			Due diligence/ Actions	
				Category		
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, cytoxic 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(iii)Guidelines for Bar Code System for Effective Management of	

Sl.No.	Key Question	Answer		Risk	Due diligence/ Actions	
		Yes	Yes No Category			
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 <u>Guidelines for Bar Code</u> <u>System for Effective Management of</u> <u>Bio-medical Waste</u>	
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: 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. <sup>10</sup>	
20	Are healthcare and sanitation workers provided with necessary and appropriate health screening, precautionary measures and immunizations?			Moderate	<ul> <li>If no, ensure the following practices are implemented: <ol> <li>Yearly health screening of all HCF and Sanitation staff</li> <li>Immunization for staff members as necessary (e.g. vaccination for hepatitis B virus, tetanus)</li> <li>Provisions of gloves, masks, and gowns</li> <li>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.</li> <li>Adequate procedures and facilities for handling dirty linen and contaminated clothing</li> </ol> </li> </ul>	
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	

 $<sup>^{10}</sup> http://cpcb.nic.in/uploads/hwmd/Guidelines_for\_ESM\_MercuryW\_fromHCFs.pdf$ 

Sl.No.	Key Question	An	swer	Risk	Due diligence/ Actions
		Yes	No	Category	
					<ul> <li>and Safety' in the <u>WBG General EHS</u> <u>Guidelines</u><sup>11</sup></li> <li>Additional recommendations for fire safety include: <ol> <li>Installation of smoke alarms and sprinkler systems</li> <li>Maintenance of all fire safety systems in proper working order, including ventilation ducts, escape doors.</li> <li>Training of staff for operation of fire extinguishers and evacuation procedures</li> <li>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).</li> </ol> </li> </ul>
22	Is there any territorial dispute between two or more countries in the subproject and its ancillary aspects and related activities?			Substantial	(Refer OP7.60 Projects in Disputed Areas) 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 <sup>12</sup> ?			Substantial	(OP7.50 Projects on International Waterways) Governments concerned agreement/ notification will apply.

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

Name.....

Designation: .....

Phone No.

 $<sup>\</sup>label{eq:linear} {}^{11} https://www.ifc.org/wps/wcm/connect/9aef2880488559a983acd36a6515bb18/2\%2BOccupational\%2BHealth\%2Band\%2BSafety.pdf?MOD=AJPERES$ 

<sup>&</sup>lt;sup>12</sup>International 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 Midwifes (ANMs) etc) at the target health facilities. These employees are as per the employment norms set by the government and confirming 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 Constructions 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.
- 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, ratio 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 Constructions 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 authorityStep 4: Once addressed, feedback is given/ sent to the complainantStep 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 contact 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: 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 carried out 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 are 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 BMWM team need to be specified at the outset.

At the state level, constitution of a state level BMWM 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**

BMWM 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

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.

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 BMWM 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 BMWM, 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 BMWM 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 BMWM 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. HIV, Hepatitis B and C, MERS, SARSCov2, 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, etc.
- Availability of Post Exposure Prophylaxis against HIV infections.

Key points for daily <u>supervision of BMWM implementation</u> 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 ad monitoring of BMWM 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.
- BMWM material and equipment resources at facilities level. This includes additional supplies e.g. PPE, bins, bags etc for potential surge in BMW generation 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.

#### Reporting and recording requirements for ensuring compliance to BMWM Rules, 2016

Following reports and records shall be maintained by the nodal officer in-charge of the healthcare facility as part of compliance:

- Accident reporting (Form1)
- Application for authorization or renewal of authorization (Form II)
- Authorisation for operating a facility for generation, collection, reception, treatment, storage, transport and disposal of biomedical wastes (Form III)
- Annual Report (Form IV)

#### 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

# ANNEX IV: TERMS OF REFERENCE FOR WASTES CHARACTERIZATION STUDY (SUGGESTIVE)

#### Introduction:

1. It is important that along with the information about the organization, structure and practices for biomedical waste management, an estimate of approximate amounts of different types of wastes being generated in the facilities is also made available before planning state-wide strategy and plan for managing biomedical and other wastes from the health facilities in the state. This is crucial, as at present, the information regarding medical waste management is insufficient, treatment and final disposal options of wastes are limited.

2. The waste characterization study is required in order to improve the biomedical waste management in the healthcare facilities and to develop a successful management strategy for the management of biomedical and other hazardous wastes for the state of Meghalaya under the project.

#### **Objective:**

3. To collect quantitative information about the quantities and types of wastes generated in the healthcare facilities during delivery of healthcare services. The quantitative estimates of biomedical and other wastes management being generated in the state healthcare facilities shall serve as a sound baseline for designing of biomedical and other hazardous waste management strategies and plans. The results generated from the study shall serve to plan and implement waste management plan and procedures under the project activities plan.

#### Methodology

4. The waste characterization shall be limited to the key waste categories under BMWM Rules, 2016 only i.e. infectious, sharps and general wastes. Wastewater and liquid wastes estimation shall not be a part of the present study.

#### Sample facilities:

5. Out of total healthcare facilities, a minimum number of the following healthcare facilities of different types and sizes are proposed to be included in the study to get an appropriate and adequate sample size:

- (a) One State level Hospital,
- (b) three District Hospitals,
- (c) one Sub-District Hospital,
- (d) three Community Health Centres and
- (e) nine Primary Health Centres

#### Activities:

(i) The administration in-charge of the facilities shall be informed about the proposed study benefits, methodology and schedule of data collection etc. by the PMU.

(ii) In each facility, nodal officer for BMWM and the sanitation supervisor shall be selected for involvement in the study for data collection activities.

(iii) A one-day orientation workshop shall be arranged by PMU for the study team to make them familiar with the methodology, site assessment using questionnaire and the procedures for wastes segregation, weighing and recording the results etc.

(iv) The qualitative information about the organization, type of services, bed occupancy and services availability and manpower etc would be collected using an assessment questionnaire. This shall also include specific information about medical waste generation, collection, segregating, storage, transportation, disposal methods etc.

(v) All generated waste shall be categorized into hazardous–infectious, general and sharps waste and shall be weighed separately using a suspension spring scale to determine the quantity (kg/ day) and rate of waste generation (kg/bed/day). *The volume of the wastes, moisture contents and chemical analysis of waste constituents shall not be carried out.* 

(vi) The information shall be collected for a duration of 7 to 10 days in each study facility. To determine the composition of the medical waste, the collected waste shall be sorted into plastics, food waste, textiles, paper/cardboard, glass, metals and others. These waste categories shall be weighed separately, and the results would be recorded.

- (vii) The information shall be assessed to determine the following parameters:
  - Quantity of wastes generated (kg/day)
  - Rate of waste generation (kg/bed/day), for different types of health facilities
  - Percentage of hazardous, infectious, sharps wastes in the total biomedical waste stream

(viii) Finally, the data form and questionnaires shall be compiled, analysed and a report prepared and submitted to PMU.

(ix) PMU will be responsible for developing a recommendation plan to be implemented by the State facilities.

(x) The results of the study shall be shared with the healthcare facilities by the PMU for implementation.

#### **Required Resources:**

- (a) The PMU BMWM Nodal officer shall be the overall in-charge of planning, implementation and developing the report of the study
- (b) Study team: The study team shall include BMWM focal official and senior sanitation worker/ supervisor from each facility. The study team shall implement waste segregation, weighing and recording activities on the required forms with the help of facility sanitation workers.
- (c) Materials and equipment: Spring balance of capacity 20 kg, sorting sheets of stainless steel for sorting of wastes, weighing balance, waste collection bags, personal protective equipment for waste handlers e.g. gloves, eye goggles, face medical mask, apron, and boots, etc.

#### **Tentative schedule:**

<u>Preparatory phase:</u> Communication from PMU to the study health facilities about the objectives, activities under the study, benefits and their roles and responsibilities, leading to their nomination of study team of BMWM focal person and sanitation supervisor in their respective facilities for the study.

<u>Week 1:</u> One day training workshop for the study team members, at PMU to brief them about the objectives and contents of the study and study methods to be followed.

Week 2 and 3: Field collection of data obtained through survey questionnaire and weighing of segregated wastes.

Week 4 and 5: Compilation and analysis of information and submission of draft report to PMU and WB.

# ANNEX V: GBV, SEXUAL EXPLOITATION AND ABUSE (SEA)/ SEXUAL HARASSMENT (SH) GUIDANCE

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. To further address the SEA/SH risk, the key measures include:

- 1. Sensitization of Health care staffs on preventing GBV, SEA/ SH.
- 2. Orienting health care staffs mainly doctors, nurses, and para medics and using 'Guidelines and Protocols for Medico-legal care for survivors/\_victims of sexual violence' by MOHFW (https://main.mohfw.gov.in/sites/default/files/953522324.pdf) illustrating the need to play the dual role of responding to the survivors of sexual assault, by providing required medical treatment and psychological support, and at the same time assist survivors in their medico-legal proceedings by collecting evidence and ensuring a good quality documentation.
- 3. Setting up gender-sensitive infrastructure such as segregated toilets for men and women; and well-lit quarantine and isolation centres, with adequate human resource deployment and security measures.
- <u>4.</u> Implementation of measures as mandated by Government of India as provided under 'The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (also known as POSH Act) by establishing 'Internal Complaints Committee (ICC)' at Directorate level and at health facility levels (as applicable) to investigate complaints regarding sexual harassment at workplace.
- 5. Creating awareness and building linkages to services addressing the larger need of the victim of GBV, SEA/SH such as One-stop centers, Universal Women Helpline (WHL), Mahila Police Volunteer (MPV) in Aizawl and Lunglei districts, and State Commission for Women, and/or civil society organizations working on GBV in the state.
- 6. Monitoring GBV, SEA/ SH cases in project facilities by the <u>Social Expert in PMU</u> in a periodic manner i.e. six monthly/ annual.

Sl. No.	<b>Facilities/ Subproject</b>	Key Measures Applicable	Responsibility
	sites		
1	<u>PMU and Target</u> Health Facilit <u>ies under the</u> project	<ul> <li>a. Ensuring establishment of ICC as mandated by GoI under POSH Act</li> <li>b. <u>Setting up gender sensitive</u> <u>infrastructure</u></li> <li>c. Sensitization of Health care staffs on GBV, SEA/ SH</li> <li>d. <u>Creating awareness about GBV,</u> <u>SEA/SH services that one can access.</u></li> <li>e. Orienting health care staffs on Protocols for Medico-legal care for</li> </ul>	Social Development expert at PMU with the help of <u>CMO</u> at districts and <u>MO</u> In-charge at <u>HCF</u>

The key measures applicable at the facility level and at subprojects will include as below.

Sl. No.	Facilities/ Subproject sites	Key Measures Applicable	Responsibility
		survivors/ victims of sexual violence by MOHFW f. Building linkages to services addressing the needs of the victim of GBV, SEA/SH	
2	Subprojects/ construction sites for expansion or new construction of hospitals/ laboratories	<ul> <li>a. Ensuring safety of women from any sexual exploitation and abuse (SEA) and sexual harassment (SH)</li> <li>b. Setting up gender-sensitive infrastructure for laborers especially where labor camp is set-up</li> <li>c. Sensitization of contractor's key staffs on prevention of GBV, SEA/SH</li> <li>d. Creating awareness about GBV, SEA/SH services that one can access.</li> </ul>	Contractor; with supervision from <u>MO In-</u> <u>charge</u> / CMHO

# ANNEX VI: STAKEHOLDER CONSULTATIONS DURING PREPARATION

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

SL No	Name	Designation	Department/Organization	
	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 Erissa 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	
Medi	cal Association and Private B	SMW Collelctor	•	
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	
Healt	h 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				
Tradi	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 VII: 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	РНС	Laitryngew PHC	Laitryngew, Sohara Sub-Division, East Khasi Hills
6	РНС	Pomlum PHC	Pomlum Village, Mylliem 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	РНС	Rambrai PHC	Rambrai, Nongstoin, West Khasi Hills
11	РНС	Saipung PHC	Saipung, Saipung, East Jaintia Hills
12	РНС	Umkiang PHC	Umkiang, Khliehriat, East Jaintia Hills
13	РНС	Maheshkola PHC	Maheshkola, Rongara, South Garo Hills
14	РНС	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