

Environmental Health Risk Management Plan (EHRMP)

The INCLEN Trust International

Proposal entitled: SOMAARTH e-Data Management Platform for quality assured electronic data collection, documentation, reporting, analysis and archival of community based demographic, developmental & environmental surveillance sites and associated research studies

1. Institutional Arrangements

(i) Brief description of the proposed activity

INCLEN proposes to develop an enhanced version of e-platform with an overarching goal to comprehensively manage full life-cycle of projects from initiation to archival. Existing e-platform includes a static software for demographic surveillance SOMAARTH-1 and a dynamic & customizable software for study designs SOMAARTH-3. Proposed activities are to incorporate enterprise-based GIS solutions in the e-platform, to develop web-based metadata module as per DDI International standards, to enhance descriptive analytical capabilities through dynamic report builder modules and IT support to sites during study.

(ii) List of environments related regulatory clearances required for the activity.

1. No objection certificate form State pollution control board shall be obtained for e-waste

Institutional Arrangement					
		Yes	No	Details	Proposed Plan
1.	Is there a designated full-time staff for Environment Health and Safety (EHS) issues?		No	The proposed project is on software development and data management. It does not cover any interventions which may cause environmental health and safety issues.	Based on the requirement a Consultant may be hired on need basis alternatively one full time position could be created during the second phase when community based clinical trial or interventions will be launched.
2.	Does the EHS staff handle the following?		No	Currently EHS staff is not available. Occupational Health Safety handling is conducted by the trained clinicians, and lab staff.	Obtaining No Objection Certificate (NOC) from State pollution Control Board (SPCB) for Microbiology Lab, e-waste, bio waste is in process. Once approval/registration is done, all staff dealing with above shall be trained in consultation with SPCB and other authorities.
	Occupational Health and Safety		No		The services of Environmental Expert will
	Waste Management		No		

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	List of consents and regulatory clearances		No		also be availed as and when required.
	Record keeping of accidents and procedures		No		
	EHS trainings for staff		No		
	Environment Management Framework compliance for Innovate in India Project	Yes		Even though EHS is not available, all the activities conducted at the field site are keeping in mind the Environment Management Framework	
3.	Is there a reporting structure in place regarding EHS issues?	Yes		INCLEN's Standard Operating Procedure (SOP) on Biosafety is in place.	
4.	Are regular EHS trainings provided to staff?		No	Frequency:	Staff EHS trainings are planned. Frequency shall be as per guidelines of State pollution Control Board (SPCB).
5.	Institutional Bio-Safety Committee (IBSC)		No	No genetic research being conducted currently.	In future, as and when need will arise IBSC will be established.
6.	Ethics Committee (EC)	Yes		INCLEN's Institutional Ethics Committee comprises of 11 external members including a chairperson and 1-member secretary (permanent employee of the INCLEN) is in place.	Quality Assurance Manager is in place to monitor project adherence with respect to the Standard Operating Procedures on regular basis.
General Occupational Health and Safety					
7.	Are there Standard Operating Procedures for accidents, hazards, and other emergencies (chemical spills, heat hazards, fire hazards, radioactive hazards etc.)?	Yes		Standard Operating Procedure (SOP) for biosafety are in place and followed by the project staffs.	This will be centrally monitored and controlled by Chief operational officer (COO) and respective project managers whereas at field sites the site manager (Station Manager) will ensure compliance and give report to COO on monthly

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					bases on occurrence.
8.	Are the following in place?			Biosafety measures currently available at the organization and its field sites are based on the identified occupational risks.	Regularly reviewed and new safety measures are added based on the identified risks.
	Chemical spill kits		No		
	Eye wash		No		
	Shower stations		No		
	First Aid Kit	Yes			
	Fire Extinguishers	Yes			
	Register of accidents and injuries	Yes			
9.	Are proper signage and storage system in place?	Yes		Chief operational officer and respective project managers whereas at field sites the site manager (Station Manager) monitor regularly.	Regular feedback has been executed and six-monthly reports with photographs shall be sought from each site and a central register for the same will be maintained.
	Display of Material Safety Data Sheet (MSDS) where relevant	Yes			
	Display of emergency numbers and procedures (Person to Contact, Doctor, Ambulance, Fire Emergency, Police) displayed in all critical places	Yes			
	Signage across the facility (labs, storage, hazardous areas, etc.)	Yes			
	Are flammable materials appropriately stored to prevent fire hazards?	Yes			
10.	Are smoke detectors, fire alarms, automatic safety/shutoff systems, overflow preventors, etc. in place and regularly maintained?	Yes		Water/Fire hydrant and fire extinguishers are installed. Mock drill are conducted. Miniature circuit breaker (MCB) for electrical hazards for prevention of short circuit and electric fire hazards.	Fire alarms and smoke detectors shall be installed within 6 months.
11.	Are there control measures for VOC, air emissions, high operating temperatures, pathogens/vectors etc. in place?		No	No air, noise or pathogen related pollution generated at the field site.	No air, noise or pathogen related pollution generated at the Head office or the field site.
12.	Are regular mock drills conducted for emergency preparedness and safety?	Yes		Frequency (type wise): Every 6 month	As per the standard operating procedures (SOPs) all the staff shall be trained and record of the same maintained in the register including mock drills.

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13.	Are staff provided with OHS training?		No	Lab and clinic staff at field site are trained in Occupational Health Safety (OHS) practices.	Regular OHS trainings as a part of biosafety are planned.
Biomedical Waste (BMW)					
14.	Is there generation of biomedical waste (as described in Bio-Medical Waste Management Rules, 2016) in the grantee?		No	This project does not involve any use of biomedical items and hence no biomedical waste is and will be generated.	This project is for software development and data management which will be done at INCLEN head office, where no biomedical waste is generated, hence this section is not applicable.
Hazardous Waste (HW)					
15.	Is there generation of hazardous waste (as per Hazardous Waste Rules, 2016) in the grantee?		No	No hazardous waste is generated at head office where this project shall be conducted. For the sites, list of all waste produced in the facility. (Currently only domestic waste -solid and liquid) and general clinical waste are generated. Solid waste: 1- Organic: kitchen, agriculture/ lawn, 2- Inorganic: Paper, bottle, plastic, mettle 3- Biomedical: Gauge, dressings, syringes, unused medicines. Liquid waste from kitchen and washrooms.	No hazardous waste is generated as this project is on software development.
16.	Is there trained staff in the facility to identify and handle hazardous waste?		No	No hazardous waste is generated at head office where this project shall be conducted. For the sites, at sites, hazardous wastes are identified by the qualified personal with the help of the hazardous waste list	Hiring of an Environmental Health Staff is planned, when phase 2 of the site-oriented project start.

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				provided by the Government of India (Hazardous waste material rule 2016).	
E-Waste and Batteries					
18.	Does the grantee generate e-waste, produce or manufacture electrical and electronic equipment?	Yes		E-waste of nominal quantities is generated by the grantee and disposed as per the INCLEN's e waste management policies.	Registration process is in progress with State Pollution Control Board.
19.	Has the grantee obtained SPCB authorization on e-waste?		No	State pollution control board has been approached for registration. Authorized agency for collection of e-waste has been identified.	Authorization from State Pollution Control Board (SPCB) is in process.
20.	Does the grantee channelize the e-waste to authorized recycling or disposal facility?	Yes		Name and address of disposal facility/ recycler: Endeavor Reprocessor & Recycler's India, Plot no 323, Sector 24, Industrial Area, Faridabad, Haryana has been identified through SPCB, Palwal and registration process is in progress.	As per SOPs, INCLEN reviews the holding of e-waste including batteries on yearly basis. If some e-waste is available for disposal, the authorized agency is contacted for the collection of e-waste
21.	Does the manufacturing grantee have Extended Producer Responsibility system and EPR-authorization in place?		No	Describe: Grantee does not involve in any kind of manufacturing / production.	The INCLEN does not involved any kind of manufacturing/production.
22.	Does the grantee maintain a record of collection, storage, sale and transport of e-waste?	Yes		Registration with an authorized agency is in progress. The agency has already been identified.	The review of e-waste generated is done on yearly basics and in case there are any e-waste requiring disposal the authorized and identified agency is contact for collection.
23.	Does the grantee submit annual reports on e-waste to SPCB?		No	Once the registration is done by SPCB, reports shall be submitted as per the protocol of the SPCB.	Permission from State Pollution Control Board (SPCB) is under process.
24.	Is there accident reporting and	Yes		Accident reporting and	Chief Operations Officer is

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	records in place?			recording mechanism is in place.	the key person to whom all such reporting is made. In addition, each field site reports accidents to station managers first.
25.	Are PPEs available to staff?	Yes		There is no requirement of Personal protection equipment (PPE) for the staffs at INCLen head office were this project is been undertaken. Whenever this staff visit sites, necessary PPE (head cap, mask, gloves and coat) are carried by the staff to the field location.	The PPE involved for the project are head cap, coat, mask and gloves which shall be stocked for six months requirement. Therefore, shortages are unlikely.
26.	Is the grantee involved in manufacture of batteries?		No	We are not manufacturing batteries	We are not manufacturing batteries
27.	Does the grantee generate battery waste?	Yes		Batteries in UPS, mobile devises and electric equipment are in use.	These will be disposed off as per guidelines and directions of SPCB where registration process is on.
28.	Does the grantee deposit the battery waste to registered recycler/dealer/manufacturer/reconditioner/collection center?	Yes		Name and address of battery waste receiving entity: Concerned battery manufacturer / vendor Endeavor Reprocessor & Recycler's India, Plot no 323, Sector 24, Industrial Area, Faridabad, Haryana, India	As per SOPs, INCLen reviews the holding of batteries including e-waste. If some batteries are available for disposal, the authorized agency is contacted for the collection of the batteries.
Community Health and Safety and risk mitigation					
29.	Safety Transportation Management System (for transport Of hazardous material)		No	Grantee does not manufacture or distribute hazardous material.	INCLen is not dealing with hazardous material in anyway. And proposed proposal also does not required use of the transportation of hazardous material

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30.	Emergency preparedness and participation of local authorities and potentially affected communities	Yes		Local authorities and communities will be involved in the project from the beginning till the end As per the protocol of the projects to be conducted at sites. Emergency preparedness is part of the Administrative standard operation plan of INCLEN.	The respective state and district authorities (Chief secretary medical, district magistrate and Chief medical officers) of the field sites have already been taken into confidence and in case of any emergency the district administration and medical authorities shall be contacted for providing assistance.
Other					
31.	Does the grantee use any radioactive materials (isotopes tracers, radiation equipment, etc)?		No	No radioactive material is being used nor shall be used.	Since no radioactive material is in use or shall be used, the regulatory provisions do not apply.
	Does the grantee have appropriate radioactive material and waste storage and disposal system in place?		No	Describe: Organization does not use any radioactive material (nuclear medicine) and there is no storage and disposal system in place for such materials.	This capacity can be built in future for conducting nuclear medicine related studies if required. At present Since no radioactive material is in use or shall be used, the regulatory provisions do not apply.
32.	Are there any odor control measures in place?	Yes		Exhaust fan (1440 rpm) is in place at the lab.	The maintenance staff will keep a check on all electricity fitting for their functionalities.
33.	Does the grantee use DG set > 15 KVA?		No	DG set > 15 KVA is not in place.	Since the DG set in use is less than 15 KVA capacity, hence the various regularity provisions are not applicable.
	Does the grantee have consent for DG > 15 KVA?		No		
	Are emissions from boilers and DG sets regularly monitored to be within the prescribed norms?		No		
34.	Does the grantee have proper disposal process for solid and plastic waste in compliance to Solid Waste Management Rules, 2016 and Plastic Waste Management Rules, 2016?	Yes		Describe: Organic (kitchen, lawn wastes) and inorganic (plastic, papers, bottles) domestic solid waste are stored separately in designated bins. Organic waste is converted into the	For the waste disposal a team of one supervisor and two workers are employed. The supervisor monitors the proper in-house waste collection and liaise with municipal authorities for

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				compost at the field site and other solid wastes are collected and disposed-off by the municipal waste collectors.	waste disposal.
35.	Is wastewater treated separately by the grantee? (Liquid waste from laboratory, chemicals, fluids, solvents, medium and cultures, coolants, etc.)		No	Types of wastewater: Treatment of wastewater: Currently this is not in place as no Chemical management in wastewater is used, hence NA	A system for liquid waste water management needs to be planned in consultation with state pollution control board. Field site is located at the rural area where waste water collection and disposal are not currently available.
	Are there sludge management and cut off drains in place for wastewater?		No	The head office where this project will be undertaken in the notified industrial area which has a proper drainage system for waste water.	Grantee will contact local municipal/ panchayat office for building the infrastructure for waste water disposal.
36.	Are necessary provisions for noise cancellation in place?		No	Describe: Grantee does not generate excessive noise which required to be cancelled.	There is no such equipment in use which are noisy.
37.	Are there any settlements, water bodies, cultivated land, or any other eco-sensitive areas near the grantee's premises?	Yes		Describe: The office is located in industrial area in New Delhi	There are no water bodies, cultivated land or any other eco sensitive areas near INCLEN office.
38.	Are there any buffers, fire vehicle routes in the grantee's premises?	Yes		The office complex has access to fire vehicle from front side of the building	It is two story building which is quite amenable for use of fire tenders in case of fire. In addition, fire hydrant is installed in the front of the building.

Notwithstanding the above other risk (relevant to the project activities) that will be identified in the course shall be addressed as per standard mitigation monitoring parameters and manner of records keeping shall be in accordance to the recommendations of the project monitoring committee on subject experts engaged by BIRAC.