



NOHEP

Annexure – VII

Environmental Sustainability Plan (ESP)

Project Title: Centre of Excellence for Advanced Research on Animal Food Safety (CAAST)
Name of the AU: Maharashtra Animal and Fisheries Sciences University, Nagpur (Maharashtra),

Date of project implementation: _____

Name of Nodal Officer (NO): Dr. S. D. Ingole

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Sr No.	Proposed intervention /activity	Compliances applicable	Possible Environmental Impacts	Mitigation Measures	Scope for integration of environmental sustainability concerns	Resource required (budget, technical support, etc.)
1.	Renovation / modification/ refurbishing of existing facility	Construction & Demolition Waste Management Rules, 2016 – Notification National Building Code of India 2005	-Noise/Dust pollution. -The institution has sufficient land area. -Ready to use material can be utilized. -Less noisy equipment can be used.	-Labourers will be insisted to use appropriate safety measures -Covering of construction sites to prevent the spread of dust. -Sign boards can be displayed on the premises controlling the movement of people.	Green building code will be followed	Rs. 1 lakh (the budget provision will be made from civil works) Technical support from department of MVC, MAFSU





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2.	Microbiological work	Bio-Medical Waste Management (Amendment) Rules, 2019.	Microbiological waste may contaminate the soil, water and air	<ul style="list-style-type: none"> - Research and laboratory personnel will be insisted to use appropriate PPE. - Strict restriction on movement of unauthorized personnel in the designated area. - Proper disposal of microbiological waste after adequate sterilization through authorized bio-disposal agency - Development of clean room with biosafety cabinet (class III) and anaerobic workstation 	<ul style="list-style-type: none"> - Servicing and maintenance of the biosafety equipments - Good lab practices already followed 	Rs. 1 lakh (the provision will be incurred from budget allotted to integrated clean room facility under equipment, plant and machinery)
3.	Disposal of Chemical residues and Hazardous waste	Atomic Energy (Radiation Protection) Rules, 2004; Hazardous Wastes (Management and Handling) Rules, 1989 and Amendment Rules, 2000 & MPCB's and CPCBs; Hazardous Waste Management Rules, 2016	Dispersal of waste of hazardous and radioactive chemicals used as part of the research purpose into common drainage/gutter may contaminate the water, soil and air.	<ul style="list-style-type: none"> - Research and laboratory personnel will be insisted to use appropriate PPE. - Safe storage, handling and disposal of standards, reagents, chemicals and radioactive material (residues of pesticides, heavy metals, antibiotics, radioisotopes, etc.) as per standard protocols/ guidelines. 	<ul style="list-style-type: none"> - Hazardous waste management protocols and atomic energy rules will be imposed at all levels - Integration of the best practices of Environmental Sustainability through safe disposal of hazardous waste. 	Rs. 2 lakh (from operational costs) Technical support from approved agencies for disposal of hazardous waste










4.	Safety measures	Municipal Solid Wastes (Management and Handling) Rules, 2000	Safeguard policies	<p>-Lack of safeguards poses risk of exposure to chemicals and accidents</p> <p>-Dearth of space, poor ventilation and illumination, lack of basic facilities may lead to uncomfortable working condition</p> <p>-Lack of fire safe guard equipment leads to fire accidents</p>	<p>-An efficient hood system and biosafety cabinets are necessarily required at laboratories in order to remove various toxic and hazardous fumes from the work place generated during use of organic solvent/or during acid digestion and microbiological work.</p> <p>-The laboratories will be provided with sufficient space, ventilation, air handling unit, lighting, regular supply of essentials like quality water.</p> <p>-All labs will be equipped with fire safety equipment and first aid boxes, display of fire safety instructions</p>	<p>Accident safety measures/guidelines will be followed</p>	<p>Rs. 2 lakhs (from operational costs)</p> <p>Technical support from local government fire safety agency</p>
5.	Office, processing units and laboratory maintenance	e-Waste (Management) Amendment Rules, 2018 (CPCB)	<p>-Electrical and electronic equipment may pollute the environment. Toxic materials present in the e-waste get mixed</p>	<p>- e-Waste will be channelized through collection centre or dealer of authorized producer or dismantler or recycler or through the designated take back service provider of the producer</p> <p>- Will maintain records of e-</p>	<p>-CPCB guidelines will be followed</p> <p>-Energy efficient equipment will be used.</p>	<p>Rs. 1 lakh (from operational costs)</p> <p>Technical support from</p>	

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	Energy Conservation Act 2001)	with the earth, air, water etc. and health issues. - Excessive use of energy will lead to economic loss.	waste generated by them in Form-2 and make such records available for scrutiny by the State Pollution Control Board - Guideline of Energy Conservation act, 2001 for efficient use of energy and its conservation will be followed.	approved agencies of Govt. of Maharashtra for e-waste
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Signature


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