Environmental Sustainability Plan (ESP)

Project Title: CAAST-Advanced Centre for Livestock Health (CAAST-ACLH)

Name of the AU: ICAR-Indian Veterinary Research Institute(Deemed To Be University), Izatnagar-243122 (UP) India
Date of project implementation:

Name of Nodal Officer (NO): Dr. Triveni Dutt, Joint Director (Academic) & Dean

Contact Number of NO:09412510980

Principal Investigator : Dr. A K Tiwari, Principal Scientist & Head, Biological Standardization

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S. No	Proposed Interventions/ Activities	Compliances applicable	Possible Environmental Impacts	Mitigation Measures	Scope for the integration of environmental Sustainability (Best Practices) concerns	Resources Required (budget, technical support etc.)
1	Knowledge Generation through Exposure to Advanced Areas (rDNA, reverse genetics,	1. Environment Protection Act (1986) Rules for the manufacture, use/import/export and	1. Chances of disease outbreak / toxicity incidences etc in and around the areas	1. Institute Bio-safety committee is in place as per DBT guidelines. The approval	All environmental sustainability parameters are well integrated into the programme. Other best practices if needed would be implemented from time to time.	

	combination vaccines, biosensor-based diagnostics, herbal-, nanoparticle- and AMP-based-therapeutics, nutraceuticals, and genomics) in Livestock Health* 1. Improved vaccines 2. New vaccines 3. New vaccine candidates 4. Diagnostics 5. Generation of induced pluripotent stem cells and its depository 6. Therapeutic **intervention for treatment of disease conditions**	storage of hazardous microorganism/ genetically engineered organisms or cells, 1989 2. Hazardous Waste (Management and Handling) Rules, 1989 and Amendment Rules, 2000 & 2003 3. Recombinant DNA Guidelines	among the animals and in some cases in humans	of the committee is seeked for all type of experimental works involving Biosafety issues including genetic engineering approval. 2. Institute Animal Ethics Committee is in place which is as per the guidelines of the CPCSEA under the MoE&F 3. The institute has four incinerators for disposal of bio waste with a well-defined system of disposal 4. Institute is also		

	(Mastitis, diarrhoea) caused by AMR 7. Immuno-nutrition approaches 8. Genomic approaches			developing modern sewage Treatment Plant and Effluent Treatment Plant for disposal of Bio-Waste keeping in view future needs 5. Use of pathogenic microorganis mas or any genetically engineered organism or cells is taken up in labs notified by MoEF: All such work are being approved by the IBSC as per DBT norms & IAEC as per CPCSEA, MoEF		

				guidelines 6. New GLP and GMP are under construction at IVRI Main campus and will be completed by April 2020 7. Employment of concept of physical and biological containment and GLP: The bio containment facilities are available at all campus of IVRI viz., Izatnagar, Mukteswar and Bengaluru 8. General Requirements for the competence of calibration and testing laboratories: The Institute		

				is ISO:9001 certified and the labs fulfils all requirements 9. All the chemicals are procured following all codal formalities and as per government norms/legislation		
2	To develop a globally competitive state-of-the-art infrastructure in teaching and research in the proposed thrust areas 1. Procurement of high-end	1. Environment Protection Act (1986) Rules for the manufacture, use/import/export and storage of hazardous microorganism/ genetically engineered organisms or cells, 1989	1. Chances of disease outbreak / toxicity/radiation incidences etc in and around the areas among the animals and in some cases in humans 2. Safe use of recombination of DNA	1. All the chemicals and equipments are/ will be procured following all codal formalities and as per government norms/legi		

	equipments to support advanced research, teaching and training in the identified areas	2. Recombinant DNA Guidelines, 1990 3. WHO Laboratory safety manual-incorporated into R DNA guidelines	technology otherwise leads to inappropriate use of these agents will cause public health harm 3. Lack of safeguards poses risk of of exposure to harmful chemicals and accidents	slation 2. Labs have provision of safe disposal of hazardous waste 3. Research concerning genetically engineered organisms follow the rDNA guidelines and compliances 4. Follow the safety guidelines and and compliances		
3	2. Renovation of existing infrastructural facilities	Preservation of trees act	Site Clearing sometimes leads to loss of greenery by felling trees, clearing vegetation etc	Compensatory plantation & additional plantation would be done in /near same site and will		

	like challenge animal shed			take permission from concern Zonal officer		
4		National Building Code of India 2005	• Possibility of use of illegally mines or low quality materials affecting the sustainability of environment and the infrastructure • Lack of solar passive features demands high energy requirements for lighting an air circulation • Lack of Safety measures poses fire accidents	• Raw material would be sourced from authentic and approved vendors possessing valid permits • Renovations would keep in mind that structures are solar passive and proper ventilation is there • Fire safety measure in buildings		

5		Energy Conservation Act 2001	More Electricity consumption leads to	Regular and stabilized electricity supply should be ensured. Provision of standby source for power supply to sensitive and costly equipment is ensured. Proper earthing is done for human and equipment safety		
6		E- Waste (Management) rules 2016.	Radiation Heavy metal pollute the surrounding environment	E – Waste will be channelized through collection center or dealer of authorized producer or dismantler or recycler or through the designated take back service provider of the producer Will maintain records of e-waste		

				generated by them in Form-2 and make such records available for scrutiny by the concerned State Pollution Control Board		
7		• Construction & Demolition Waste Management Rules, 2016 – Notification	• Debris is an issue	• Debris will be used as alternative purpose such as landfilling in consultation with PCB Will follow constructional operations: • Operations like mixing raw material will be done in areas where people's movement is less and Risk Due to lack of safety measures - Noise pollution workers should		

				use masks. - Construction equipment that emits noise will not be used in residential areas during night or near schools and hospitals. - The workers will be provided with gloves, masks, helmets etc . Use of child labour will be avoided (to be ensured with		

14/1/20

Signature of Vice-Chancellor

Date

Director
Indian Veterinary Research Institute
IZATNAGAR-243122, (U.P.) India

10-01-2020

Signature of PI, CAAST-ACLH

Date 10-01-2020

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