



University of Agricultural Sciences, GKVK, Bengaluru

Centre for Next Generation Technologies (NGT) in Adaptive Agriculture (AA) under
ICAR-Centre for Advanced Agricultural Science & Technology (CAAST); (F.No./NAHEP/CAAST/2018-19)

Environmental Sustainability Plan (ESP)/Action

1. Name of the Agricultural University: University of Agricultural Sciences, GKVK, Bengaluru
2. Date of project implementation: 13-06-2018
3. Name of Nodal Officer: Dr. K.T. Prasanna, Professor and University Head, Department of Forestry and Environmental Sciences, UAS, GKVK, Banaglore

Sl. No.	Proposed Interventions/Activities	Compliances applicable	Possible Environmental Impacts	Mitigation Measures	Scope for the integration of environmental Sustainability concerns (Best Practices)	Recourses required (budget, technical support etc.)
1	Ethidium bromide containing agarose gel/ acids and detergents	Hazardous waste management rule 1989	It is a mutagen and may also be a carcinogenic and teratogenic/it can also contaminate ground water, surface water and drinking water supplies	Dispose the waste after proper treatment and handover to pollution control board/ Separate channel to collect hazardous waste from lab.	Best practice is being followed to dispose the chemical	Dedicated grant is requested for additional disposal/septic tank (INR 10.00 lakh)
2	Plastic wares (tips, tubes, plates, covers, etc)	Yes	It may contain chemicals which may harm the environment; some materials are non-biodegradable	Plastic-ware containing chemicals are disinfected before disposal and non-chemically contaminated	Best practice is being followed to dispose and re-use	-

				tips and tubes autoclaved and reused.		
3	Microbial cultures	Environment Protection Act 1986	Direct disposal of these organisms to may contaminate the environment/ecosystem Outbreak of diseases	Safe disposal of microbial cultures by killing or autoclaving.	Best practice is being followed to dispose	
4	Greenhouse research materials	Yes	Direct disposal of experimental material can contaminate environment/soil	Experimental material like soil and plants is being disposed after sterilization.	Plants are growing in controlled condition. Best practices is being followed to dispose the material	-
5	Processed food	Yes	Waste generation leads to environmental pollution	Biodegradable packaging material is being used	Best practice is being followed to dispose the materials.	
6	Field experiments	Yes	Overuse of pesticides might affect environment and ecosystem	Recommended and green labelled pesticides are being used at prescribed dose as the user guidelines.	Recommended practice is being followed to dispose	
7	Land races	Biodiversity Act 2002	Without approval from biodiversity act leads to legal legislation	Take approval from biodiversity act and farmer		
8	NABL				Accreditation of microbiology, pathology, seed science laboratory for best practices	
9	Lab safety measures	Microbiology, pathology, crop	Risk due to lack of lab facility	Provide safety measures like fire extinguisher, first aid kit, sensors, proper		

		physiology, biotechnology laboratories		ventilation and availability of water		
10	Environment Best Practices				Use of bicycles, electric operated vehicle, generation of biogas using hostel wastes, biofuel production, use of solar energy, planting trees, green campus by minimising plastic usage.	

Signature & Seal of the
Principal Investigator

Signature & Seal of the
ESP Officer