

ENVIRONMENTAL MANAGEMENT SYSTEM OF THE UNIVERSITY OF COLOMBO

by

**Center for Environmental Initiatives
University of Colombo**

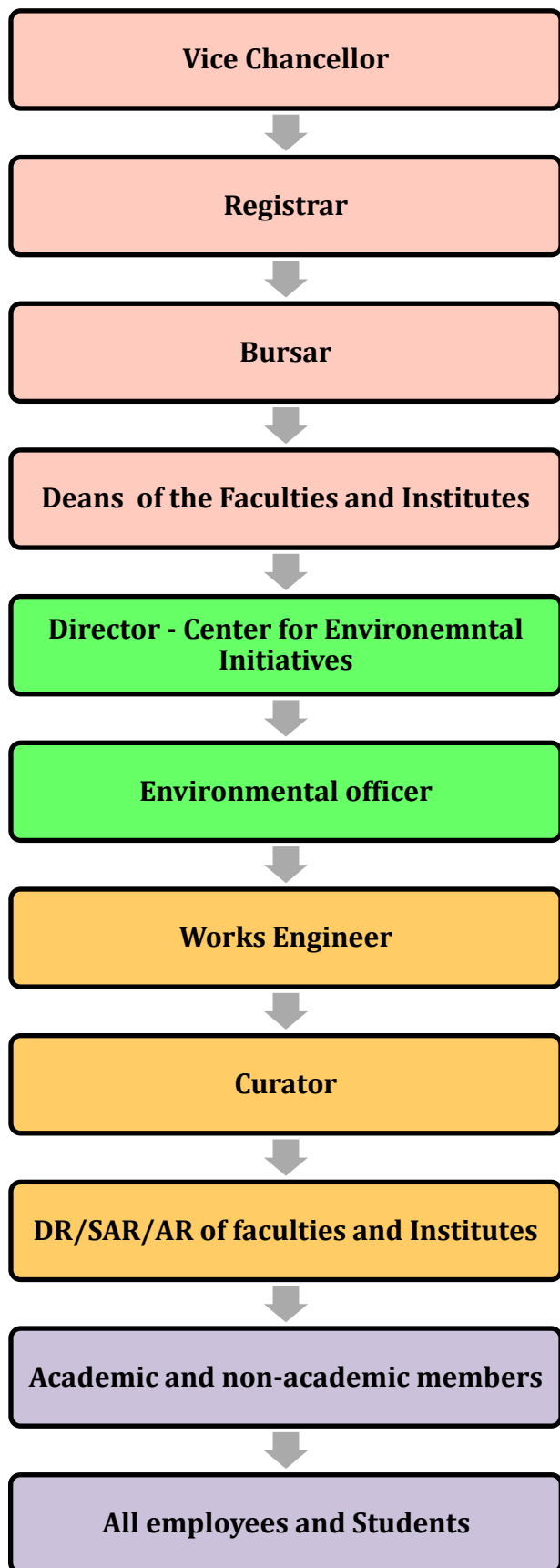
The Center for Environmental initiatives (CEI) of University of Colombo is a body established with the target of achieving environmental protection and sustainable green development. CEI is a university center that is committed to introduce new green initiatives promoting the concept of sustainability among the University community.

University of Colombo Environmental Policy

University of Colombo recognizes that our institute has an important role to play in protecting and enhancing the environment for future generations and to help secure the long-term sustainability of the education sector in Sri Lanka. The top administrative/management authorities of the University of Colombo are committed towards sustainable resource consumption, pollution prevention, and continued environmental improvement on campus, while complying with the existing legal requirements. We shall strive to incorporate sustainability into our educational operations through internal and external efforts. We shall adopt the policies and good practices on the following:

- a) Promote environmental education, outreach and awareness
- b) Conserve energy, water and natural resources
- c) Waste management and implement 3R concept
- d) Introduce and promote to the purchase of environmentally preferable products
- e) Toxic waste management
- f) Introduce new green initiatives and green technologies
- g) Develop green partnerships with institutes, industries, companies and local authorities

Organizational structure relevant to the implementation of the EMS



- The Center shall be under the office of the Vice chancellor and shall function under the supervision and guidance of the Vice Chancellor of the University of Colombo for the purpose of its administrative, financial and other activities
- Registrar, Bursar, Deans of the Faculties and Institutes, Director of the Center for Environmental Initiatives, DR/SAR/AR of the faculties and institutes and Environmental officer shall function as the Environmental Management System Committee
- The Director of the Center and Environmental Officer are responsible for identifying significant environmental aspects, ensuring that the EMS is properly implemented, and planning new initiatives to sustain the environmental management system
- DR/General Administration, Works Engineer, Curator, DR/SAR/AR of faculties and Institute are responsible for supporting to implement proposed projects
- Volunteer members contribute to the action body through active engagement in the projects
- All employees are responsible for working in accordance with the documented environmental procedures, instructions and responsibilities, reporting problems /deviations associated with environmental

Environmental Management System committee is responsible for:

- establishment and implementation of the EMS
- establishment and review of objectives, targets, and programmes
- ensuring the effective implementation of environmentally-related operational controls and programmes
- internal communication of environmental matters and promoting environmental awareness among the staff
- review of complaint records, corrective action and preventive action reports and the adoption of preventive action as necessary
- providing leadership in the pursuit of environmental issues
- any other EMS activities that are assigned by the top management, based on the management review
- Holding regular meetings (at approximately *three-month* intervals).

University of Colombo shall follow a “plan-do-check-act” process to facilitate continual environmental performance and improvements under this Environmental Management System

Planning

The planning process includes the identification and updating of University of Colombo’s Register of Environmental Aspects, and the Register of Legal and Other Requirements. Together with University of Colombo’s environmental policy, objectives and targets have been established, and appropriate programmes are formulated to achieve the objectives and targets.

Environmental Aspects and Impacts

The ISO 14001 standard requires having a procedure to identify environmental aspects and potential impacts when setting environmental objectives.

The following shall be concerned under planning:

- Identification of the existing environmental issues
- Consideration on ultimate disposal method of waste products and management
- Energy and resource (e.g. water) use efficiency
- Storm water discharge management
- Wastewater treatment
- Hazardous waste storage and handling

- Conducting environmental and safety audits
- Environment-related inventory management
- Archiving of environment-related data and proper documentation
- Green cover and planting trees
- Training programmes and awareness creation (Green talks, student orientation, workshops, seminars)
- The methods of communication (Website, email, awareness boards)

Legal and other requirements

University has a procedure for identifying and communicating any applicable legal or other environmental requirements.

- Regular communication with local government agencies, private companies, Consultants or other environmental peer groups.
- Website access and Facebook page
- Research and publications
- Participation in seminars related to environment

Objectives and targets

The objectives of the EMS are as follows:

- Adoption of green initiatives considering reduced greenhouse gas (GHG) emissions, green reporting, and cleaner production
- Promotion of environmental education, outreach and awareness
- Conserving energy, water and natural resources
- Waste management and implementation of 3R concept
- Introducing and promoting the purchase of environmentally preferable products by the campus community
- Toxic waste management
- Introduction of new green initiatives and green technologies
- Protecting the campus environment and making the campus premises more environmentally friendly
- Developing green partnerships with institutes, industries, companies and local authorities
- Creating environmental awareness outside the university (Schools) and supporting the community in green activities

Environmental Management Program

1) Continued implementation of waste segregation and management practices in advance at the University

- Introduction of garbage bins according to the colour code in solid waste management and monitoring the continuation of waste management practices
- Awareness boards to educate on waste segregation and recycling, environmental promotion and posters to discourage the bad waste management practices and to inculcate better attitudes among the university community
- Yoghurt cup recycling project
- Assign and train cleaning people for collection, segregation, and storage of recyclable materials in a proper way to support the recycling process, to minimize the waste that goes to landfill sites
- Educate the cleaning staff on garbage bin cleaning practice to maintain hygiene

- 2) Value addition to waste resources
 - Store and facilitate recycling of recyclable waste material generated at the university
 - Encourage community to recycle their waste
 - Introduce composting facilities and make compost using garden waste and leftover food to manage biodegradable waste
 - Use them as a fertilizer in gardening by reducing the use of inorganic fertilizers
- 3) Environmental awareness and education
 - Introduce environmental education into the learning process
 - Conduct green talks on recent global environmental issues with the participation of experts in the respective fields
- 4) Conversion of the existing system to a greener system
 - Ban on the use of single-use polythene products inside the university (Selling, using and keeping)
 - Ban on the sale and use of bottled water during campus functions
 - Installation of hydration stations to fulfill drinking water requirement
 - Providing the opportunity to buy new green products
 - green fairs and exhibitions
- 5) Internal rewarding system for environmental performances at Department and Faculty level
 - Monitor energy, water, waste management and other environmental performances
 - Provide guidelines to follow in becoming the best environmental performer/s
 - Rank the departments considering performance and selection of the best
- 6) Surveys and research on facilities
 - Conduct annual waste surveys
 - Gather data on utilities and consumables (e.g. energy, water, transport)
 - Calculate footprints (carbon, water)
 - Evaluate the progress and drawback/s of the waste management programme
 - Give solutions for the areas that have gaps for continued improvement
- 7) Environmental activism
 - Tree planting programme to reduce carbon footprint
 - Beach cleaning and shramadana campaigns to reduce environmental pollution
 - Small-scale awareness programs to the community for environmental protection
 - Introduction of green practices and green education to schools
- 8) Green awards

- Introduce green initiatives to fulfill the requirements to become a green university
- Application for green awards in local and international level (e.g. awards relevant to cleaner production, green reporting, etc.)

Implementation and Operation

Structure and responsibility

The vice chancellor of the University of Colombo is the top management who supervises and guides all the environmental activities

Environmental Management System Committee is responsible for identifying significant environmental aspects, ensuring the proper implementation of EMS and planning new initiatives to sustain the EMS.

All employees, and students, and other relevant stakeholders are responsible for working in accordance with the EMS and reporting problems and deviations associated with environmental concerns.

Training

All personnel who have potentially significant impact on the environment need to be made aware and appropriately trained.

- Officers should be trained to identify the environmental needs to implement new projects
- Contractors that work on university projects must have proper awareness and training so that any of their action does not adversely affect the environment
- Training and awareness creation for cleaning- and canteen staff on green practices
- Emergency preparedness and laboratory safety training

All employees, students and other stakeholders in the supply chain should be made aware of:

- University environmental Policy
- University EMS, Environmental objectives and goals
- Specific roles and responsibilities of individuals related to the EMS
- The potential environmental impact/s of their activities
- The methods to overcome impact/s and become sustainable at individual and institutional level

Communication

A procedure for internal and external communication must be maintained.

Internal communication includes:

- University newsletters
- Internet and university e-mail
- Staff meetings
- Safety and awareness meetings
- Poster and awareness boards
- Suggestion box

External communication includes:

- Internet (Website and Facebook page)
- annual reports

Documentation

Documentation provides a way to maintain information, to know what is happening and to prove it.

Documentation also provides a way to evaluate the outcome. Therefore, keeping the documents, including the following, current and complete (with periodical review) will be key to the effectiveness of the EMS:

- Action plans
- Meeting minutes
- Survey data collection
- Memos
- Other important documents relevant to the decision-making process

Emergency preparedness and response

Emergency response procedures include,

- Emergency preparedness plan
- Fire assembly points
- Laboratory safety and preparedness

Checking and Corrective Action

Monitoring and Measurement

Monitoring and measurement are to assess current environmental performance, identify root causes of problems, corrective action, improve performance and increase the efficiency of the environmental management system. The following will be major concerns:

- Monitoring activities for all green projects
- Tracking performance with environmental goals
- Calibration and proper maintenance of monitoring equipment

- Review of the compliance with applicable regulations
- Health and safety monitoring
- Quality assurance
- Environmental audits

Records

Records will serve as the proof of the functionality of the EMS within the University of Colombo

- Records on waste generation, electricity consumption, water consumption, fuel and Gas consumption
- Tree planting programmes
- Environmentally sustainable activities
- Environmental publications and reporting

Management Review

The final stage of the environmental management system will be the management review. The involvement of the Management will be key to the success of the EMS, and they will provide oversight in order to assure the proper functioning of EMS and that the objectives and targets are met.

Reviews should include:

- audit results
- evaluation of reaching objectives and targets

Management review should be documented, including any suggested changes and subsequent action.