How to Improve Lamont's Environmental Impact

In practice, an environmental audit (Eco-audit) is an instrument or tool that comprises methodical, documented, frequent, and purposeful assessment of a group's management procedures and performance with respect to environmental protection and resource conservation. In addition, an Eco-audit evaluates the extent to which the management of an organization is in conformity with standard government environmental policies, and, hence, serves to monitor the effectiveness of an organization's environmental management system.

The primary goal of my internship was for me to serve as an environmental auditor for the Lamont-Doherty Earth Observatory of Columbia University. I conducted background research and gathered information on the various resources and materials that Lamont handles. I then compiled the results of the Eco-audit into a presentable website.

According to local standards, Lamont does tend to consume a significant amount of available resources. However, in comparison to other facilities, comparable to Lamont in size and function, resource usage is minimal. Energy usage in the form of electricity is extensively high primarily because numerous machines and power-drawing instruments must stay operational for long periods to appropriately serve their purposes. Gas usage is minimal because it is only used for heating purposes. Extensive water usage is probably Lamont's sole shortcoming for the same reason as electricity usage. Paper usage is acceptable because of Lamont's endeavor to use recycled papers that are made from post-consumer waste, which is environmentally friendly. Paper waste, as well as other solid waste materials, such as glass, plastic, cans, batteries, vehicle tires, among others, are produced in minimal amounts and disposed of by being properly packaged and sent to the local solid waste reclaiming facility. The major hazardous wastes produced at Lamont are acids, as they too are made in small amounts and disposed of by a specialized hazardous waste treatment group.

In the area of electricity usage, a possible initiative in conservation would be to invest in energy efficient machines and appliances, those that have better insulation and can perform more productively without much energy consumption. Water can be conserved through the same practical methods used in household water waste reduction. In addition, an on-site water treatment facility can be constructed to treat and recycle some of the wastewater and reuse it in areas such as lawn maintenance and other minor purposes. Since Lamont now has a low environmental impact with the other materials, it is recommended that they maintain that status and work harder to reduce waste in other areas.