BIO 166 Case Study Project

The Philippines is rich in terms of resources including biodiversity. However, the Philippines islands are consequently being threatened by numerous environmental problems. These environmental problems are brought about by numerous factors that may be man-made or through natural processes. These problems have also brought about consequences that is detrimental to the ecosystem’s health but also to human health. With this, the national government hired the Biologists in the Department to come up with a case study project assessing a particular environmental problem that is evident in the Philippines and evaluate how the identified environmental problem affects the identified ecosystem in the Philippines. The group will have to 1) present initially a situational analysis on the particular ecosystem on one of the Philippines islands by presenting the state of the resources in that particular ecosystem. The group will have to 2) Conceptualized the environmental problem in relation to the identified ecosystem’s health; 3) make a systems analysis by employing the STELLA software; and 4) Simulate the model using secondary data or assumptions taken from literatures to predict the ecosystem’s health in terms of the state of resources and or environmental quality. The simulation is necessary so that the group assessing the environmental problem on the corresponding ecosystem will be able to forecast the state of the resources and or environmental quality in the specific ecosystem.

The outputs generated from this exercise will have to be presented to the other biologists so that the group making the assessment will be able to 5) develop a participatory sustainable management scheme that can help address the environmental problem indicating the specific roles and tasks of the community where the ecosystems are situated.