You can do it!　Remote Sensing Analysis

Using MAP-II for Ecological Zoning

1) What is MAP-II?

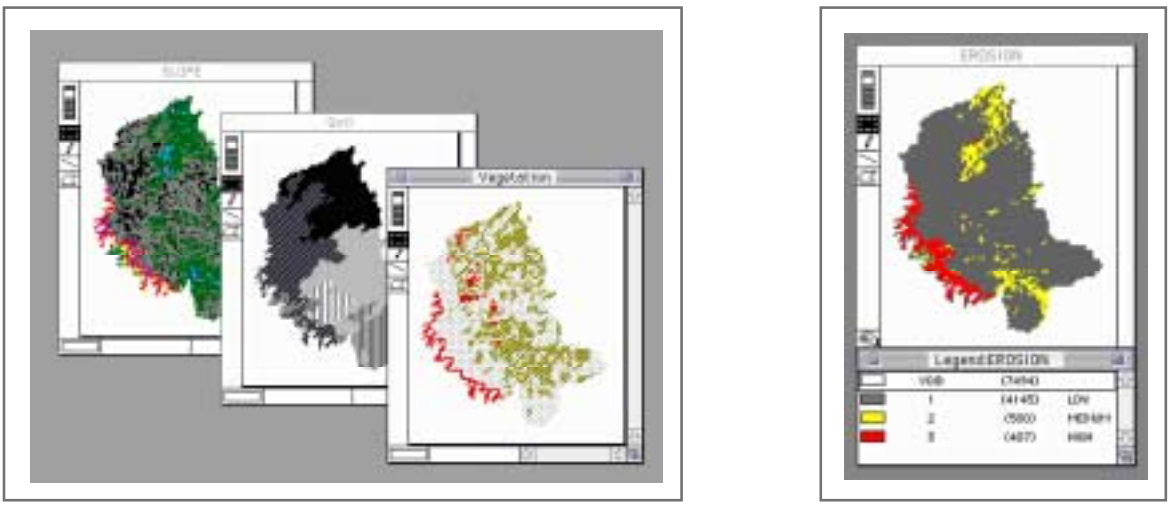
MAP-II is a kind of GIS software, regarded as raster GIS, which can deal with mesh-type data. To analyze with MAP-II, first, target area is divided into meshes, then numerical data is assigned to each mesh, following which all data are processed and a mesh map is formed. MAP-II can directly read the numerical data which is input by spread sheet software like Excel. However, when the target area is large or large quantity of data has to be processed due to huge number of meshes, input of data becomes a time-consuming process. So as to make this work easier, scanned colored map can be substituted.　MAP-II can read Remote Sensing data of LANDSAT or SPOT etc as well.

2) Example of how to use MAP-II

First, some mesh maps are formed on related subjects (vegetation, soil, land use, endangered species, historic places or protected areas). By overlaying those maps as needed, the target area can be zoned according to the purpose, such as regional development planning, natural resources management, or environmental conservation. This is one of the ecological planning method which put natural and social environment into consideration when development project is planned.

Mesh maps shown as below are examples of how to use MAP-II. Maps of slope, soil and vegetation are overlayed to create a new map showing degree of soil erosion potential. You can choose specific condition like "the area with slope of more than **%, scarce vegetation and sandy soil", and put colors or select mesh-pattern as you like. The right map below shows three grades (high, medium, and low) of possibility of soil erosion.　A map of precipitation can be added in order to conduct more accurate analysis.

This method can be applied to zoning for development planning or selection of appropriate land for afforestation by putting distribution of natural vegetation, topography, soil, weather and water resources as basic data set.　In these ways, MAP-II can be effectively used for making various plans which make the best use of characteristics and conditions of area.



Zoning of Potential Area of Soil Erosion by Overlay Method using MAP-II