Dust storms, severe soil erosion, and large acreages of abandoned land provide ample evidence that we have not been making the proper use of our lands. It is time to recognize this situation and replan our land use for the future. Proper land use means adequate and sound planning for the future with full recognition of the many factors involved and the careful integration of their relative importance. Social, economic, and physical factors must be considered. The land itself is perhaps the more basic factor since the social and economic factors are dependent, to a large extent, upon it. Hence, a physical land inventory is the foundation upon which a sound land use program must be built.

This physical land inventory should show such factors as the slope or topography, the physical structure and native fertility of the soil, and the present land cover. No one factor is dominant. All are interrelated and all must be evaluated in their true perspective.

**TOPOGRAPHY**

The topography or slope of the land affects either the erosion or drainage on any given tract of land. Quite obviously, erosion losses are greater on the steeper slopes and the drainage difficulties increase with lack of slope. Topography determines, to some extent, the permanent use for which land is best suited. Some slopes are adapted to the production of cultivated crops while others are suited only for permanent grass meadows or pastures and others only for woodland.

**SOIL TYPE**

Physical structure of the soil and its native fertility may be expressed by designating the soil type. As soil type is based upon certain characteristics such as color, structure, mode of formation, etc., all soils of a given type will have a given physical structure and native fertility. The physical structure of a soil affects its ability to resist and rainfall. The more fertile types produce a vigorous growth and this added growth, in turn, in preventing erosion. The extent character of the root system varies different soil types, but is, in proportional to the amount of top growth. In other words, the greater the yield of hay, the greater the soil binding effect of the roots.

**EROSION**

The present condition of the land is expressed by the amount of erosion which has already taken place. Generally speaking, the productive capacity of any given piece of land will vary directly with the depth of the surface soil. In other words, a surface soil with a depth of seven or eight inches is a more productive soil than one with a depth of only four inches. The normal depth of surface soil in Ohio is approximately seven or eight inches. If, in examining a field, we find that only four inches of this original seven or eight inches remain, this fact will give a rough indication of the crop producing power of this particular field.

It is also important to know or not the land is gullied, whether not the gullies are frequent or occasional, whether the gullies are actively or passively cutting, whether the gullies are shallow or deep. All of these will have a bearing on the future possibilities for agriculture of a particular piece of land. Unfortunately, erosion has not been recognized until recently, and all of us will be forced to revise our thinking with reference to proper land usage so as to recognize and interpret this factor of land destruction.

If classes for the various types and amounts of erosion are established, it is possible by the use of color types and symbols to express accurately in mapping this condition of the land.

**COVER**

The present cover on a given tract of land is of importance in planning particularly where the land is in forest or permanent grass cover. Information on the type and condition of the vegetative cover is essential in determining the extent of the changes needed. For example, the kind and quality of the vegetation have a marked effect on the rate at which water flows from the land. In a forest,