The best utilization of our land is a problem that not only affects each individual land owner but it is a social and economic problem that cannot be evaded by our National and State Governments.

It is very painful indeed to contemplate the waste in connection with our natural resources. Forests have been ruthlessly destroyed by the axe and by forest fires and the combination of fire and overgrazing has destroyed the natural grass cover over millions of acres of what was once rich productive prairie soils. Plowing, preparation and the cultivation of intertilled crops up and down our slopes have helped the runoff water to go off faster and carry many tons of soil per acre annually from our best upland cultivated fields. When the natural cover of forest or grass is destroyed and the top soil is left exposed to the uncontrolled runoff water, the natural result is the loss of soil from the uplands and destructive floods down the streams. In addition, springs and streams have dried up that formerly had water during the most severe droughts.

With the absorptive top soil now washed away from 125,000,000 acres of formerly productive fields in the United States, it is time for this nation to take active measures for the conservation of the good soils that are still left under cultivation and to cooperate with nature in restoring to either grass or trees the fields from which all the top soil is gone or that have been ruined by gully erosion. Some have argued that this problem must be left with each individual land owner, but I maintain that the conservation of our greatest resource, the soil, cannot be left with individual land owners. We have been expending millions of dollars of the tax payers money in the construction of great levees to hold back flood waters and yet we have permitted individuals, through private exploitations to destroy the natural grass and forest cover of the head waters above and enrich themselves at the expense of the masses of our people. No individual has a right to make an individual fortune through the wanton destruction of grass and trees and by careless methods destroy the good top soil on millions of acres, resulting in flood waters and the deposition of silt and sediments which costs us millions of dollars down the stream.

As a basis for an intelligent method of procedure in conserving our good soils and economically reclaiming our badly eroded and gullied fields and pastures we must map and classify the soils in a way that will give us the necessary knowledge regarding the several factors which must be considered for the best utilization of each field, whether privately owned or as a part of the public domain. The more important factors to be considered are the extent of erosion, rainfall and climate, and the type and slope of the land, the type and character of the soil, the kind of vegetation, and the ownership of the land. The soils of the Red Plains Region, an area of about 36,000,000 acres, roughly 400 miles long from north to south and 150 miles wide from east to west, in southern Kansas, through Oklahoma and north into Texas.

The mature soils of this region, with a slope of zero and the 3% have a very low infiltration capacity and rolling phases suffer seriously from sheet erosion where poor methods of crop and soil management are practiced. Additional rainfall causes the surface to wash away and leaves in the shallow phases. The region is characterized by a severe drought and a type of rainfall. The soils naturally wash away very badly and especially when farms have a very low infiltration capacity and rolling phases suffer seriously from sheet erosion where poor methods of crop and soil management are practiced. The disintegration of the more rolling and steeper slopes is not well protected by vegetation. Nearly 2,000,000 acres of the cultivated fields in the state of Oklahoma are now badly eroded and usually abandoned from cultivation. The reclamation of these badly eroded and gullied fields and pastures is a slow process and it must be started from a cooperation with nature in an effort to help the runoff water to go off faster and carry more soil with it.

Badly Gullied Fields

Wherever there is a good cover of forest or grass, erosion is not a serious problem. Nature's methods, where not hindered by the hand of man, usually take care of the problem. We find badly gullied pastures are in the custom of annually burning off the hay combined with overgrazing. Cow trails on trails up and down the slope have resulted in the formation of gullies where the soil is not well protected by vegetation. Nearly 750,000 acres of cultivated fields in the state of Oklahoma are now in that condition.

About 750,000 acres of the pasture land of Oklahoma are mutilated with bad gullies. This picture represents an average of 48,000 acres in Payne County.

The reclamation of these gullied fields is a slow process and it must be started from a cooperation with nature in an effort to help the runoff water to go off faster and carry more soil with it.