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## *Farm Land Resources of the United States*

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**T**HE NEEDS OF THE UNITED STATES FOR ARABLE LAND can be analyzed in terms of anticipated population, income and consumer preferences of this population, and expected volume of agricultural exports. In these broad terms, ample areas of land exist for taking care of the needs of the United States in the foreseeable future—more than ample. And the land is of such quality that, under conditions of reasonably high levels of employment in non-agricultural sectors, farmers can have good incomes for their labor. In fact, our land resources in this country, under modern systems of soil, crop, and livestock management, are abundant enough to permit several alternative policies for their development and use. That is,

unlike many crowded countries where every potential acre must be used, we have many choices. Generally, of course, we should aim to use those lands for crops and livestock that will give the greatest economic return on a sustained basis, taking account of competing uses for forestry, recreation, and the like, and especially of the advantages to be had from locally balanced economies with the various resources for agriculture, forestry, mining, and industry fitted together.

Besides this general view, and more important to realizing the full advantage of all our resources and of the labor and genius of our people, is the need to appraise our resources regionally and locally. The farms furnish not only goods to the general market, but also employment and a way of life to people—a way of life that can be good or poor. In some sections of the country new opportunities are urgently needed; other sections are fairly well in balance now. We have the choice of developing lands within areas where people need new land or within other areas to which such people may migrate. Then, too, we are becoming increasingly aware of the advantages of a mixed economy of agriculture and industry in the same region.

#### RESOURCE NEEDS OF OUR POPULATION

First, let us look at the general needs of the country as a whole. According to recent estimates,<sup>1</sup> the existing crop and pasture land is more than enough to support our present population with a moderate-cost adequate diet. It would not support all the population with a high-cost adequate diet—a diet that would reflect the tastes of high-income families for the more expensive foods.

On the basis of crop yields for the period 1941–1945, and 355 million acres in crops plus 140 million acres of crop-land equivalent of feed from pasture, 167 million people could be supported with a moderate-cost adequate diet. Under the same assumptions, 203 million could have a low-cost adequate diet and 137 million a high-cost adequate diet. This high-cost diet assumes 44 per cent of the food energy from livestock products and the low-cost diet only 30 per cent. Based upon previous experience with the acres used in the United States, the high-cost diet would require 3.15 acres of crop-land equivalent per person and the low-cost diet 2.12 acres, excluding acres for non-food and non-feed crops and for horse and mule feed.

It would seem clear from these calculations that many more than

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<sup>1</sup> For this discussion, we have drawn heavily on the data presented by Raymond P. Christensen in his *Efficient Use of Food Resources in the United States*, U.S.D.A. Tech. Bull. No. 963, 1948.

our present population could be supported with an adequate diet without employing any more land resources and with no greater production from the use of our land resources. In doing this, however, there would need to be some shifts away from products now preferred by American consumers, especially meat. But even with the 1943-45 civilian diet, a population of around 161 million could be supported.

**TECHNOLOGICAL IMPROVEMENTS.** There is every reason to believe, however, that technological improvements in agricultural efficiency will continue to take place. In fact, the rate of application of these improvements is accelerating. Such improvements will likely increase production from the existing crop and pasture land, although many of them, as in the past, will be directed primarily toward reducing costs. This is an important distinction to make. For a great many years farmers have been adopting improved production techniques in the United States. This has had a remarkable effect upon efficiency, but only in very recent years have the average yields of the principal crops increased. This was because American farm managers were concerned with cutting costs, especially labor, as much as they were with increasing yields. Many good practices were adopted because they increased efficiency, even though they might actually reduce slightly the net harvest.<sup>2</sup>

Now yields are increasing. Between the period just before World War II and 1946, farm production increased about 3 per cent per year, with little increase in the land used for crops. It would be conservative to predict a further increase of 10 per cent by 1955. A study made by agriculturists in the Land-Grant Colleges and in the Department during the early part of World War II showed that it would be entirely practicable for farmers to increase production on a sustained basis by at least 20 per cent, and by 30 per cent on several items without increasing acreage used. It should be emphasized that in this study full account was taken of farming systems to maintain soil productivity without depletion through erosion or other processes. A good deal has happened since then to make even those figures look conservative. Of course, we all know that what farmers do in this direction depends a great deal upon the kind of agricultural programs that are adopted and especially upon the general level of employment and economic activity in the country. A very serious agricultural depression might change the present trends.

But looking again at a 10 per cent increase in production per

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<sup>2</sup> See also "The Soils Men Live By," Charles E. Kellogg, Lecture for the Graduate School, U.S.D.A., November, 1948. (Mimeographed).

acre, we see that 184,000,000 people could be supported with a moderate-cost diet, or 150,000,000 with a high-cost diet on the present farm land. The most recent estimates of the Bureau of the Census forecast a population in the United States of 155,500,000 by 1955.<sup>3</sup>

**NEED FOR MORE LAND.** In general terms we may say that our need for more land in farms depends upon (1) whether our population will increase faster than is now expected, (2) whether our consumers are able to purchase a high-cost adequate diet, (3) whether exports will continue at present levels or even increase, or (4) some combination of these circumstances.

Since we are only laymen in the fields of inquiry within which these questions lie, we can only give a layman's comment. It seems reasonable to accept the population estimates and to assume no drastic changes in immigration policy. Nor can we see anything now to suggest an increased volume of agricultural export, except possibly to meet short-time emergency situations. There is every reason to hope that a high level of agricultural exports will continue as a part of a high level of international trade in all sorts of goods. As European recovery proceeds, however, a real prospect exists for even some decline in agricultural exports.

What consumers in this country use of agricultural products can vary a good deal. A falling off of employment and business activity could lead to a decline in the domestic market, and especially to a decline in the so-called high-cost items like meat, milk, and fruits. Not as a program primarily to support agriculture, but as a program to improve the health and efficiency of all our people, a series of important steps might be taken to encourage better nutrition. These include the furnishing of school lunches. Something may be done for children of pre-school age. We have all heard a good deal of discussion about plans for helping low-income families obtain an adequate diet. Considerable prospect exists that programs of this sort may be adopted. If so, the consumption pattern will be in the direction of the "protective" foods like livestock products, fruits, and vegetables.

Considering the general situation, in our view, there appears to be no immediate need to develop any substantial acreage of new land in crops and pasture to meet the probable consumption requirements. We might go even further and suggest that to develop a large acreage in advance of actual need might run the risk of creating surpluses. Attempts to meet such risks, or threatened risks, might lead

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<sup>3</sup> Current Population Reports: Population Estimates. Bureau of the Census. February 14, 1949.

to inefficient production in several ways. For example, through strict farm quotas on some sort of historical base, high import restrictions on specialty crops or through other subsidies.

At the same time there is an urgent need for farm families on poor soil to find better economic opportunities, either on better land or in other occupations. It may be entirely justifiable and reasonable to help farm families on poor lands to find new opportunities in farming through land development, even though these general requirements do not suggest the need of a greatly increased acreage.

#### LAND AVAILABLE

When national requirements should demand an increased acreage of crop land, how much do we have available and where is it? This question cannot be answered precisely for two reasons: (1) We do not have accurate soil maps for much more than one-half of the arable land; although, of course, there is no land in the United States about which we do not have some information, even though it is sketchy in places. (2) More important is the fact that any estimate of land area available depends upon economic conditions, including a scale of prices and costs either consciously or unconsciously assumed, and also upon an assumption as to the state of the agricultural arts. In making such estimates, one usually relies on history. But in fact, the land will be used in a new economic environment and with a new set of tools rather than in the old economic environment with the old tools.

If we were really pressed for land, as people are in many of the crowded countries, we could increase our farm land enormously. In the humid parts of the United States for example, practically all the soil that does not have steep slopes, that is not thin over rock, that is not simply loose, deep sand, or that is not undrainable, could be used to produce crops or pasture. That is, should our need for farm products demand it, we could use a great deal of land which, under foreseeable economic conditions and the foreseeable state of the agricultural arts, it would be clearly unwise to use for farming.

In the arid parts of the United States, fairly deep non-stony soils with gentle slopes that can be freed or kept free of salts, and that can be irrigated from available water supplies, could also be used for crops. Here again, there is no prospect that we shall need to use all of this. We should pick out the best of it for use as needed, giving full recognition to the other competing uses of land and especially of the water supplies.

Although by no means entirely satisfactory, perhaps the best estimates we have of the amounts of land suitable for cultivation are those published in the 1938 Yearbook of Agriculture, *Soils and Men*

TABLE 4.1\*

Geographic division (1)	Land now in cultivation (1935 census) (2)	Land suitable for cultivation under present practices							
		In cultivation		In plowable pasture	In brush or timber	In need of drainage	In need of irrigation	Total	
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	<i>Acres</i>	<i>Acres</i>	(%)†	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	(%)†
New England.....	4,303,401	1,736,646	40.4	103,143	.....	.....	.....	1,839,789	42.7
Middle Atlantic.....	17,158,442	2,894,823	16.9	369,129	22,843	1,984	.....	3,288,779	19.1
East North Central..	64,758,999	38,009,771	57.8	6,568,996	3,127,172	678,496	.....	48,384,435	74.7
West North Central..	148,751,973	59,935,039	40.2	7,094,306	285,923	1,191,600	138,100	68,644,968	46.1
South Atlantic.....	35,099,820	9,943,499	28.3	1,015,910	4,003,802	1,873,609	600	16,837,420	47.9
East South Central..	30,588,628	9,803,944	32.1	1,502,272	3,790,762	222,021	.....	15,318,999	50.1
West South Central..	65,222,331	21,828,643	33.5	3,347,079	8,238,937	1,994,323	790,706	36,199,688	55.5
Mountain.....	30,419,715	11,537,538	37.9	1,192,945	112,200	262,532	1,754,094	14,859,309	48.8
Pacific.....	19,031,622	5,258,800	27.6	417,900	274,600	205,000	236,000	6,392,300	33.6
Total.....	415,334,931	160,948,703	39.1	21,611,680	19,856,239	6,429,565	2,919,500	211,765,687	51.0

Land suitable for cultivation under best soil-conservation practices

Geographic division (1)	In cultivation			In plowable pasture	In brush or timber	In need of drainage	In need of irrigation	Total		
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	<i>Acres</i>	(%)†	(%)†	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	(%)†	(%)†
New England.....	3,579,142	83.2	206.1	336,127	.....	.....	.....	3,915,269	91.0	225.4
Middle Atlantic.....	12,910,992	75.2	446.0	1,620,920	73,276	1,984	.....	14,607,172	85.1	504.6
East North Central..	57,346,837	88.5	150.8	12,313,011	5,878,757	690,611	.....	76,229,216	117.7	200.5
West North Central..	128,410,635	86.3	214.2	20,248,118	599,393	1,213,900	349,800	150,821,846	101.4	251.6
South Atlantic.....	28,209,286	80.3	283.7	3,419,817	11,552,831	2,977,376	600	46,159,910	131.5	464.2
East South Central..	19,727,870	64.5	201.2	5,138,369	7,203,114	222,021	.....	32,291,374	105.6	329.4
West South Central..	51,886,792	79.6	237.7	5,986,678	15,704,103	2,025,803	872,671	76,476,047	117.2	350.3
Mountain.....	21,658,006	71.2	187.7	2,497,136	181,670	292,426	2,538,658	27,167,896	89.3	235.5
Pacific.....	15,349,922	80.7	291.9	1,162,500	958,400	239,700	2,087,000	19,797,522	104.0	376.5
Total.....	339,079,482	81.6	208.5	52,722,676	42,151,544	7,663,821	5,848,729	447,466,252	107.7	278.0

\* The estimates cover land suitable for cultivation under prevailing price levels during the period from 1921 to 1936 and not subject to erosion injury under present methods of farming and, second, the amount of land in the United States, assuming the same price levels, that would be suitable for cultivation without erosion injury if the best farming practices and erosion control methods were put into effect.

† Of column (2).

† Of column (3).

(Table 4.1). Those estimates were made in the light of economic conditions of about 1921–1936,<sup>4</sup> and thus do not at all represent the extreme limits of what could be cultivated with a much greater population. We have no doubt that new estimates would result in a somewhat different series of figures, probably somewhat higher ones generally, partly because of great improvements in the agricultural arts and partly because of a higher level of economic activity. These estimates show some 55 million acres of land suitable for cultivation (under the best practices for the control of erosion) that were not then used for cultivation or for plowable pasture. Undoubtedly this is a conservative figure. Interestingly, 40 million of the 55 million acres are in the 16 states<sup>5</sup> of the southeastern part of the country.

A part of this 40 million acres in these 16 states is in the Mississippi Delta, part of it is in the low-lying flat woods and coastal plain along the Atlantic Ocean and the Gulf of Mexico, and a large part is on the uplands inland from the sea. Most of it is forested and quite a bit of it is poorly drained. Except for those of the Mississippi Delta, the soils are generally not fertile under natural conditions or when first plowed, but they are very responsive to fertilization and other good management practices. Much of this land has soils essentially similar to a great deal of the land now supporting intensive farming in this southeastern region. It has not been used heretofore, partly for institutional reasons—absentee ownership, large holdings by people not interested in farming, and the like—but primarily because the market requirements for those products for which the region possessed competitive advantage have not demanded its use. This situation is changing, however, with improved technology and increasing regional population. Within the past generation, greatly improved methods of fertilization and liming have been developed, along with much improved varieties of cereal grains and forage crops. Then too, there has been an increase in population in this region, especially urban population, which tends, along with the improved technology, to raise these lands above the margin for livestock and dairy production.

Several modern soil surveys have recently been completed in various parts of this area. In some of these, the use of the various soils was determined. Analysis of these findings supports the general figures given in the 1938 table. If anything, we should now suspect that these earlier figures were low.

Estimates from a soil survey in Mecklenburg County, Virginia,

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<sup>4</sup> *Soils and Men*, Yearbook of Agriculture 1938, page 95, U.S.D.A., U. S. Govt. Print. Off., Washington, D.C., 1938.

<sup>5</sup> These include: Del., Md., Va., W. Va., N.C., S.C., Ga., Fla., Ky., Tenn., Ala., Miss., Ark., La., Okla., and Tex.

and from a physical land conditions survey of Greene County, Georgia, are given in Table 2. In each of these counties the acres of land suitable for tilled crops that are not cultivated exceeds the acreage that is cultivated. On the whole, the same types of soil are included in the cultivated and uncultivated acres, although the uncultivated acres may require somewhat more intensive practices for sustained production than those already cultivated.

We should not want to overemphasize these acre figures. In these and similar tables, acres of different soil types are thrown together. But we must recall that an acre is not a fixed standard of agricultural productivity—not at all. Soils—even soils suitable for crops—vary enormously from one another in characteristics, and consequently in their responses to management. Even on the same kind of soil, optimum management practices and yields vary with prices at the farm, farm labor supply, the farm buildings inherited from the previous generation, and the like. New technology affects the various kinds of soil unevenly, changes their relative economic advantage. Thus, accurate figures must get down to individual soil types.

TABLE 4.2  
VARIOUS USES OF LAND SUITABLE FOR CULTIVATED CROPS  
IN TWO SOUTHERN COUNTIES

	Mecklenburg, Va. * 1944	Greene, Ga. † 1940
	(acres)	(acres)
Total Area . . . . .	425,000	266,000
Area suitable for tilled crops . . . . .	308,000	144,000
That were in woods or brush . . . . .	149,000	64,000
That were idle . . . . .	26,000	16,000
That were in crop land . . . . .	123,000	48,000
That were in pasture . . . . .	5,000	16,000
Crop land on land unsuited to tilled crops . .	13,000	6,000

\* From unpublished manuscript of the Soil Survey of Mecklenburg County, Virginia.

† From "Physical Land Conditions in Greene County, Georgia." Physical Land Survey No. 23, Soil Conservation Service, Washington, D.C., 1941.

Generally speaking, modern technology, including new varieties of crops and grasses, fertilizer practices, erosion-control methods, live-stock care, forestry practices, and rural electrification, have placed the soils of the humid East, and especially those of the Southeast, in a more favorable position than they had formerly. True, there is still a great lag in the general adoption by farmers of the new practices in proper combination for high levels of sustained production; but the potentiality clearly exists. Thus, we must be careful in thinking about "ratios of acres to people" or "average" acres. Few, if any,



farmers use "average" acres. A farmer uses one or more specific types of soil, most of which are rather far from the average. It is important that we continually re-examine our concepts of land that are based upon average yields, average responses and the like. Otherwise, we shall be basing land policy upon the experience of a previous generation, rather than upon the potentiality of the next with a whole set of new and more effective tools.

**OPPORTUNITIES IN THE SOUTHEAST.** In the popular mind, most of the soils in the Southeast are thought to be unfertile. In a sense this is true. They were developed under forests in a humid climate with little freezing. Except for the young soils of the river flood plains, most of them have been strongly leached. Farm crops are quite different from the native vegetation. Most of the crops and grasses have been introduced. They have had to be reworked by the plant breeder for yield, quality, drought tolerance and disease resistance. A great deal of progress has been made. Still these crops developed by the plant breeder have quite different soil requirements from those of the native vegetation. Thus, the farmer needs to make an arable soil from the natural soil. This is what the good farmers have done and are doing now.

Perhaps the rough sketch shown in Figure 1 illustrates an important difference between the majority of the soils in the Southeast and the majority of the soils in the Prairie part of the Middle West. In the best soils of the Prairie soil region, maximum productivity is to be had at first. It is almost bound to fall off considerably if the land is cultivated and exposed to the sun for any considerable length of time. In other words, the practical level of soil productivity for economic sustained production is somewhat lower than the initial one. Put another way, for the first few years there is an area under the curve of productivity that might be regarded as "God's free gift to the homesteader." Approximately the reverse situation exists with most of the soils of the Southeast. The initial productivity, or at best after the first 3 or 4 years after clearing and burning, is well below the practical level for economic sustained production. Thus, during the first few years the farmer must add lime and fertilizers and introduce legume hays into his rotations in order to build up his soil.

These relationships are still imperfectly understood by farmers, but are far more generally appreciated now than they were 15 years ago. Great opportunities exist now for using these soils effectively, and not only these, but the hillier ones not suitable for crops, under a protective cover that is also highly productive.

The size of farm has also been, and is now, a handicap in this region and has held back advancement. But farm businesses can be

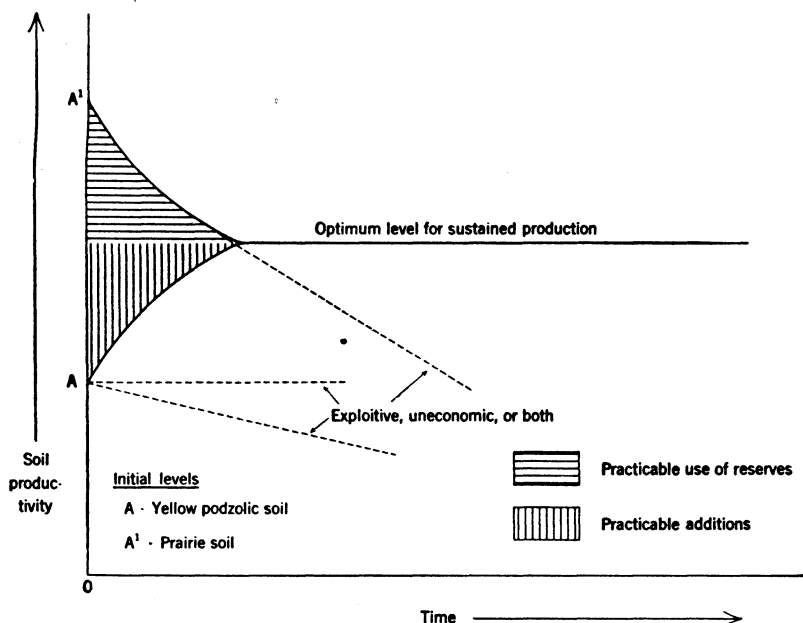


FIG. 4.1.—Highly idealized sketch illustrating the sharp contrast between using reserves in a Prairie soil (of the Midwest Cornbelt) and adding reserves to a Yellow Podzolic soil (of the Southeastern States) in order to reach the optimum level for economic sustained production. (Actual levels and time rates vary greatly with individual local soil types.)

expanded through the better use of unplowable soils on the farm for pasture and for forestry. Many opportunities also exist for enlarging farms through expansion of the total acreage and through local movement. Fortunately, a great deal of good land not now used is scattered throughout the area, although, of course, not uniformly.

#### REGIONAL ASPECTS OF NEEDS AND RESOURCES

The general factors affecting land use have unequal effects from place to place. For example, improved income and purchasing power in any particular city have a more pronounced influence on the local markets for fluid milk, fruits, and vegetables than on the general demand for these products. Thus, the establishment of industry in an existing agricultural area offers new kinds of jobs for people now on farms. It also offers better economic opportunities for those who remain on farms when an increased local market demand and, consequently, the increased local need for land develops. The establishment of more industries in the southern states, for example, can have

the effect of relieving the crowding on the land. At the same time, it increased the demand for the very products adapted to improved farming systems with better combinations of practices for both production and conservation.

Reclamation through irrigation has broadened the economic base of many western communities. Good agriculture has been added to mining, ranching, forestry, or some combination of these. In many agricultural areas of the West, the development of hydroelectric power is a critical need and has both a direct and indirect bearing upon the use of the land. Low-cost electricity for use on existing farms and for use by new industries may be fully as important as more irrigation—often more so, if the advantages of a balanced economy, with both agriculture and industry together, are to be realized.

The direction of new public investments in the Great Plains, and especially in the Missouri Valley, may have enormous effects on the use of the land. For example, a determination to irrigate large, continuous tracts would require a high priority for the use of water impounded in reservoirs—whether of the multiple-use type or not—for irrigation and for the development of intensive, specialized farms. On the other hand, the investment could seek high yields of electric power with more of the irrigation developed on individual farms, or in small projects where water might be pumped from the ground-water supplies or from small impoundments. In this second alternative, emphasis could be given to increasing the stability of existing ranches and dry farms. Compared to farms farther east, these farms in the Great Plains have been unstable because of the fluctuating climatic conditions and because of the relatively narrow base of the agriculture—mostly wheat and cattle. If the first alternative is followed, the existing farmers will either need to change to specialized farming or be subject to the severe hazards of drought as they were formerly.<sup>6</sup>

Although it may appear paradoxical, it is in the southeastern states where the amount of uncultivated, potentially arable land is greatest that the greatest need exists for farm people to find additional livelihood opportunities. Except for the southeastern states, and for parts of Utah and New Mexico, farm families in the United States are rearing only a few more than enough sons and daughters to take over the operation of existing farms. Therefore, development of new land elsewhere than in these crowded areas, on an extensive scale, will require migration. In contrast, the development of new land in

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<sup>6</sup>See "Hearings Before a Subcommittee of the Committee on Irrigation and Reclamation" on a bill to establish a Missouri Valley Authority, Document 555, 79th Congress, First Session, 1945.

the South will find ready at hand farm people needing the opportunity. This has already been demonstrated by the large movement of families from the hills into the Mississippi Delta in recent years.

### BASIC POLICY QUESTIONS

In conclusion, we should like to suggest some policy questions. Because of the relatively abundant soil resources in the United States, it is possible to choose among several alternatives for our further development. We do not need to cultivate every acre of plowable upland, drain every swamp, and use every available drop of water for irrigation. With the present prospects of increase in population and continued technological development, we shall not need to draft all these resources into high use in the foreseeable future. We have many alternative opportunities for maximizing the use of our resources in a way to give rural people a higher standard of living than they have had.

To what extent should migration of farm people be encouraged? Since we have so much available land, certainly every effort should be made to encourage the movement off poor soil—soil too unresponsive with our present agricultural arts to give economic sustained production. Many of these soils are eroded and a protective cover of trees is the most productive one. But those occupying these poor soils need a better economic opportunity elsewhere.

We have currently thought of such shifts in terms of long distances. Historically, there has been a great deal of shifting of farm population within the United States. At first, of course, settlement spread to the West, following the colonization along the East Coast, and, to a much less extent, into our present Southwest from Mexico. Big shifts took place immediately after the Civil War to the Middle West, the Great Plains, and the Far West, from New England and from the so-called "worn-out soils of the East."<sup>7</sup>

In the North, this migration went on along with a rapid growth of industry. For a long time now, farming in the Middle West has developed alongside industry. Farm boys and girls have had many opportunities. Also, there has been a decline in the size of farm families in the North along with the improved incomes.

Relatively, there was less movement from farms in the southern states, partly, perhaps, because of the homesteading advantages of the Union veterans over the Confederate veterans. After the Civil

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<sup>7</sup> Of course, most of these soils were not "worn-out." They were not and had never been so responsive to the current agricultural arts as the soils of the Middle West. A great deal—certainly the larger part—of the abandoned land of the East was as good when abandoned as it ever had been, except possibly for the first 2 to 5 years of cropping after clearing and burning.

War, many of the large plantations were split into small tenant farms. Anyway, since the Civil War, there has been a high proportion of small farms in the South. A good many of the families on these have been large and have had low incomes relative to farm families in the Middle West. Thus, in the South the farms have remained smaller with more people per 100 acres of crop land.

Actually, there is less "hopeless" land being farmed than is commonly supposed. Some of the soil that looks bad and is not supporting the farm family has good potentialities if it were properly managed. Moving a family from such soil to another kind of soil may not help at all. Instead, it may be far better to help such a family learn how to manage the land it already has. In a great many instances, a relatively small investment toward this end will accomplish as much as an expensive move. Especially in the southern and middle atlantic states, many farm businesses are too small for a family to succeed, even with good management. These businesses can be increased through better use of the non-crop land—pasture land and forest land—and through aid in purchasing more land, either adjoining the existing farm or nearby in the same community.

Group settlement versus infiltration has been argued for years. Now, of course, there are many potential areas in the world where settlement can only succeed on a group basis. This is true in many parts of the tropics. It is true in the Far North. It is true in the development of desert land for irrigation. But settlement by infiltration, where possible, has many advantages. A large part of the land available for settlement in the Southeast is in relatively small holdings. A large portion of the needed community services—roads, schools, shopping centers, and the like—already exist.

All we are really saying is that investments in land development should be appraised broadly, considering all the many opportunities that exist in this country. We need to ascertain, for example, the costs and benefits from public investments in the Southeast in demonstration farms; in payments under something like the Agricultural Conservation Program for land clearing, terraces, lime, phosphate, and the like; and in loans for enlarging farms—and these we need to compare with the costs and benefits from public investment in large-scale irrigation schemes. It may well turn out that we shall find the best program involves some of both.

Finally, and most important now, consideration needs to be given the local and regional balance among industry, forestry, mining, and agriculture. Some areas have such an overwhelming agricultural advantage that their development for agriculture alone is justified, even though all the costs for roads, schools, hospitals, shopping centers, and so on, need to be carried by the farm land. Ordinarily, however,

this is not so, and it is becoming less so. In many areas of only moderate productivity, farming alone will not provide a sufficient economic base to support the services we should like to see Americans have. There is so great an advantage to both industry and agriculture in their development together that potentialities for their complementary development should be given first priority. Even in the Missouri Valley, one wonders whether more industry is not more urgently needed than more farming.

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