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Scientific planning as a fundamental for improvement of agriculture, at Annual Meeting of the New York State Agricultural Society, Albany, January 20, 1932

I am happy to have the opportunity of greeting this body representative of the interest of agriculture in the State of New York, and of greeting you here in Albany while the Legislature is in session. We need the reminder
of your presence as well as your counsel. We need to be reminded that besides its interest in the commerce, the finance, the manufacturing and the arts and sciences and literature of the Nation, the State of New York also has a stake and an interest in agriculture. We have not wholly outgrown the fundamental occupation on which our State and our Nation were built. Ours is still one of the leading agricultural states of the Nation. Its agriculture will always remain, so far as it is possible for us to know today, one of the foremost of our industries. We have millions of fertile acres suited by nature for permanent employment in agriculture and for the use of the probably much greater population of the future. Science has found no way by which men may be fed except from the products of the soil. I do not anticipate that it ever will, for I am one of those who love the soil and am not able to escape a life-long interest in the processes by which it yields our sustenance—processes whose pursuit also yields some of the greatest satisfactions of life. All of you also find these satisfactions in farm life in spite of the vexations, the frustrations and the discouragements that are the lot of all farmers.

In this State we have been definitely planning on the basis that our agriculture is permanent, that it will always be of fundamental importance, and we have realized that we must so manage our economic future and so govern our political arrangements that the enduring needs of agriculture will be given the consideration that belongs to them.

In so doing we are not planning for the farmers solely, but for the rational use of the resources nature has given us, and for the welfare of our population, urban as well as rural, present and future.

Besides the present management which has to do with the productivity of our farms, the economical handling of their crops, the conditions of living of the farm population and the right adjustment of facilities and the costs of government, we have embarked on a rather ambitious program of planning the best use of the land. Strange as it may seem, that is a novelty in America today, though three hundred years have elapsed since this very region was first settled by our ancestors. For three hundred years we have been taking the land as it came, adjusting ourselves to it by the method of trial and error. The tragic thing about this is that it sometimes takes generations of back-breaking toil on stubborn acres to discover that they never should have been used for farm homesteads because they are not fit for it—an example of sheer economic waste.

We have committed too many times in our history the equally tragic error of expanding where we should have contracted—of "reclaiming," as it was called, vast acres for the plow when there was plenty of good land available that did not need to be reclaimed. And so today, in spite of the great increase in our population, the farm acreage problem in the United States is more a problem of reducing our acreage on a sound scientific basis—reclaiming it where it ought to be reduced—than of expanding it.

There are other uses for land than the growing of food crops, use which in the past we have done much to destroy by an unwise haste to turn every acre possible into plow land. In that course we have gone far in disturbing a balance of nature which contributed toward a successful agriculture and in other ways toward balanced and healthful living. Only a generation or two ago, for instance, we were still blind to the fact that serious evils could come from the destruction of forests. There were still plenty of trees and we did not realize the beneficent effects of timbered hillsides in protecting our water supplies, guarding our soils against erosion and saving our valleys from disastrous floods. We thought nothing of saving wild lands for their recreational values and to protect our wild life, because we were still too close to pioneering conditions. To what had been as free as air we attached no value. When we first began to sense the danger of the ruthless destruction of forests, it was merely because we saw our timber supply diminishing and we were able to visualize lumber as something that had a present real value and a potentially greater value.

But now we begin to see things in a clearer light. We want to restore all the values that the destruction of the forests menaced. We are taking
steps to preserve the mountain forests and to plant new forests to replace those that were burned away.

The program of forest preservation and of reforestation in which New York State is quite properly the leader among all the states in the Union is merely one step in a direction which indicates the new orientation of our views regarding land uses. Economic changes have had a part in developing that new viewpoint. One of these changes is the rapid improvement in agricultural methods that have made our farmers more efficient and have made each acre of soil more efficient. Another is the coming of the motor age and coupled with it, the mechanization of agriculture. This has had many effects. It has greatly reduced the consumption of hay and other feeds for animals and has thus struck an economic blow at an important branch of agriculture, reducing the demand for acres to produce these crops. But it has also shortened the time to be expected of the public and private funds, we need to know what is going to be the future of farm development and the general use of the lands of the State. We should hire a few prophets to tell us. And that, as a matter of fact, is just what we are doing. Prophecy along certain lines is not an impossible thing. Men for ages have been getting rich by a kind of prophecy that consists of knowing the facts of the present. When we know those, we don't need to do so much gambling on the future.

The prophets whom we have put to work in the last two years in New York State are soil experts and agricultural economists, who are members of the staff of the State College of Agriculture at Cornell University. They are engaged in a 10-year program of study of the soils and physical characteristics of the whole State with a view to mapping the lines of its future development. In the course of that study they are taking account, not merely of the possibilities of agricultural production, but of the probable trend of population and of industry. They are considering agricultural markets as well as agricultural supplies. They are considering where roads will need to be built or improved, where electric power and telephone lines may properly be installed, where there will need to be expansion of school facilities, where villages and cities will grow. On the other side, they are considering where more land will be abandoned, where roads can be given up eventually, where schools will disappear, where towns and villages will dwindle.

It must not be assumed that this study is based on a belief that agriculture in the State of New York is decadent. Farm abandonment doesn't mean anything of the kind, for the very reverse is true. All the time this land abandonment is going on, we are witnessing an increase not only in the efficiency of our agriculture, but a general increase in production and—allowing for a period of depressed prices—a general increase in the value of farm products in the State. We are not planning for decay, but for growth along the lines growth will take place. We are planning for the uses to which the land will actually be put, whether for farming, for forestry, for city building or for recreation.
While the work has gone forward up to date in only a relatively few counties of the State, it has already had important results. One outgrowth of it is that by virtue of the studies completed and in progress the Extension Service of the Agricultural College is able to give invaluable advice to farmers on future development and to aid people from the cities in finding new locations suited to the forms of production they have in mind. The survey has also produced information of great value to us in carrying forward our reforestation program, indicating the areas where tree culture will be the most profitable use for the future. The data gathered has been profitably used, too, by telephone and electric light companies in revising their plans for extension of service. Its usefulness in all these lines will be multiplied from year to year as the work is extended to new areas and new forms of inquiry.

I have already indicated how this survey and the trends of movement which the survey is disclosing affect the problems of local government. The abandonment of farms is both preceded and followed by decline in property values, which reduces the ability of towns and counties to provide roads, schools and other public services for which government is responsible. On the other hand, increases in agricultural development and increased density of settlement enlarge both the demand for services and the means of supplying them. In the change from the survey both where to build and where not to build. We can be saved many millions of useless expense.

Out in western states where mushroom towns sprang up following gold and silver discoveries that showered great prosperity for a few years and then were worked out, they have what have come to be known as "ghost towns"—collections of buildings often solidly constructed of brick and stone and now without any inhabitants except now and then a lone wanderer, sight-seer or prospector. There are hotels without a lodger or a landlord, shops whose shelves hold nothing but dust and refuse, railroad stations without any railroad. We want to avoid building ghost roads and ghost school buildings and ghost villages in New York State.

This survey, it seems to me, is a very clear instance of the sort of service the State should render to its citizens, a service that cannot be performed by any lesser units of government on the broad scale on which it must be performed. It is gratifying to know that Secretary Hyde has recently expressed his approval of this idea of planned use of the soil in which the Empire State is pioneering. The Federal government can do much to spread this new gospel initiated by the State of New York.

In the development of the agriculture of the State, all of the people of the State have a permanent interest. They have an interest in maintaining an efficient machine for the production of their food supplies and they have an interest in the living conditions of the farm population which cannot be wholly left to subordinate organizations of government. When tax burdens become oppressive, when avenues of communication are not properly developed, when health interests are neglected, when the American birthright of good educational opportunities is being denied, the State's duty is to interpose and to do what it can to set matters right.

Highways and schools are activities that once were regarded as belonging entirely within the province of local government and their tax burdens were carried wholly by the counties and towns. But we now see our responsibility in a different light and we tax for their maintenance in part on a State-wide basis. As to the schools, we seek to establish as far as possible equality of educational opportunity for the children of all our citizens. As to highways, we have recognized that roads no longer have merely local uses. Motor transportation has made virtually all roads links in one great system of communication vital to the public welfare.

In the last few years we have been making extraordinary strides in the development of our highway system. Three years ago we set up a 10-year program of approximately 3,000 miles of new construction to bring the mileage of the State system of roads to a total of 14,000. Instead of an average of 300 miles called for under the program, we have been building State roads at the rate of 361 miles a year. In fact, under the relatively low costs of last year more than 400 miles were built. These new roads
represented an expenditure of approximately twenty million dollars out of fifty-nine millions spent for new construction, reconstruction and maintenance. Reconstruction last year converted 372 miles of inferior road in the State system into smooth, comfortable and durable modern highway at a cost of $28,000,000.

But the 12,000 miles of excellent highway in the State system are only a small fraction of the 82,000 miles of rural roads in the State. The 12,000 miles provide communication suitable for fast traffic and for heavy traffic to all parts of the State. The other 70,000 miles include the roads which the farmer must use to haul his supplies and to get his products to market. On these roads there was expended by counties and towns an amount approximately equal to the State's expenditures on the State's 12,000 miles. The result of this local expenditure on rural roads varies greatly in effectiveness. Some towns and counties have done good work. In some the work has been so wastefully done that there is very little to show for the money that has been spent.

Now the fact that farm market roads must necessarily be cheaper roads than through highways as the Albany Post Road does not mean that it is any less important to build them right. The business of building broad concrete highways has become pretty well standardized and is being done efficiently. The same thing cannot be said of methods of building farm roads where only a tenth of the money per mile can be spent. One county or one or two towns in a county may solve the problem fairly well, but that doesn't prevent waste and inefficiency elsewhere in the State. And the total of that waste is great. It is not merely a waste of public money, but an added expense to farmers and other rural dwellers and those who do business with them who are compelled to travel on bad roads when they might have reasonably good ones.

Recognizing the fact that the State is legitimately concerned with the problem of improving and making more efficient rural road construction, the Legislature at my request three years ago appropriated $100,000 for the use of the State Highway Department in the experimental construction of rural market roads. The Highway Department has been carrying on its experiments since that time. It has tried out plain gravel roads, field stone roads and combinations of these with various sorts of surface treatment. Careful accounts of the cost of each type have been kept and there has been constant observation of their endurance under traffic. The Highway Department has now adequate information on which it can proceed to build on an economical basis and on a broader scale a series of roads which would be demonstration roads rather than merely experimental roads.

It seems to me that that is a logical next step. I think that if the State should build through the Highway Department—not through any indirect State-aid process—10 miles or more in each county of the State of inexpensive rural market road of an approved type to replace dirt roads, it would have a powerful influence in reforming road building methods in the rural towns and introduce a new spirit of emulation and rivalry in good road building throughout the State. Besides that, it would add substantially to the mileage of improved road available to the farmers of the State.

Consequently, I have today made a proposal substantially along these lines to the Legislature. First, that approximately three and a half million dollars out of State highway funds available from the motor fuel and motor vehicle taxes be diverted to the construction of these demonstration rural roads, the amount so appropriated to be deducted from the funds for new construction on State highways. We are now well ahead of schedule on State highway construction and this deduction will still permit us to do one-seventh of the construction of State highways which remains to be done in the next seven years in order that the program shall be maintained; second, that these new roads shall be built by the State Highway Department, either by contract, or by direct employment of labor, in which case local labor would be given the preference and the use of its own or rented equipment; third, the roads to be so improved would be selected by the Superintendent of Public Works upon the suggestion or approval of the State College of Agriculture and with the consent of local
The costs of the experimental roads of this type built by the Highway Department have ranged from $3,040 a mile to $5,688 a mile. It has been estimated for me by Commissioner Brandt that a highly satisfactory type of rural road can be built, for not to exceed $5,500 a mile. This would be a gravel or stone road in most cases, with surface treatment applied after it had been under traffic for a year. At this average cost, we should be able to build 626 miles of these roads this year with a three and a half million appropriation, which means a little more than 10 miles to the county.

When we consider that on the average there are approximately 1,300 miles of rural road in each county of the State, it can be seen that this program does not by any stretch of the imagination mean taking rural road construction out of the hands of the counties and towns. It does distinctly mean putting the State Highway Department into competition with the local road-building authorities to demonstrate which can do the best and most economical job of rural road building. It will give local taxpayers an opportunity to judge whether they are getting the worth of their money and it should result in the working out of far better methods of farm road construction in the State, methods which may not bear quite so heavily on the rural taxpayer as those of today.

I think my purpose in asking that the State College of Agriculture shall have a voice in determining where these roads shall be built shall be entirely plain to you. I want definitely to hook up rural road building with the soil and economic survey of which I spoke earlier in this address.

This road project which I am laying before you tonight and which I have asked the Legislature to approve is in fact a unit in a program intended to give intelligent direction to the development of the farming regions of the State. The aim is to stabilize agriculture so far as possible and to eliminate some of the needless tragedies which are incidental to economic changes.

There is one final aspect of highway building which I want to stress. During the past two years our economic thought has been given the severest kind of shock. Or, to put it more correctly, the lack of thought and loose thinking which prevailed for 10 years up to 1923 has been succeeded by very definite and close attention to the fundamentals of modern life.

We know, for example, that in 50 years a rural and small town population representing 75 per cent of the whole was turned into a rural and small town population representing only 22 per cent of the whole. Millions of people rushed into industrial and business occupations in the centers of population. We know that industrial expansion and facilities grew far beyond the capacity of the country to consume their products.

The result is that today we must develop a comprehensive, many-sided program for the restoration of a more normal balance of population between the big cities on the one hand and the rest of the country on the other. One reason for the influx of people to the cities was the difficulty and sometimes hardship of life on the farm and in the villages. Lack of adequate, all-the-year-round communication lay at the bottom of these hardships.

Farms and villages were literally cut off at many times of the year from the main arteries and from the big centers, because of snow-bound highways or impassable mud.

If it be true that people left the country districts in part because of these transportation difficulties, it is, I think, a sound guess that thousands of them will return to villages and farms if we can improve communication by highway. There are two essentials to this improvement: First, there must be some guarantee that the roads will be kept from being snow-bound in the winter months; and, secondly, there must be a guarantee that mud and mire will be replaced by hard surfaces.
I am sufficiently optimistic to be very certain that the Legislature will, in accordance with these recommendations, pass the first practical legislation this winter to solve the problem of mud roads. If this State can show the way in this great practical reform, I shall be very happy, because our example will without question be followed by many of our sister commonwealths. In the long run, if this policy is adopted throughout the Nation, we shall have brought the producer closer to the consumer and at the same time we shall have done something toward relieving a national condition of unemployment by restoring the balance between city and country.