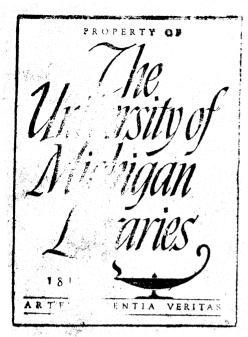
Cashin-Study of rural zoning

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A STUDY OF RURAL ZONING

bу

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Presented In Partial Fulfillment
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A STUDY OF RURAL ZONING

PART I - LAND ADJUSTMENT, A COMMUNITY AFFAIR

Reviewing "the course of human events" from the earliest days of recorded history, one cannot fail to observe that, at some point in the process of using natural resources for his own benefit, man has been forced to check his headlong rush and sit back and analyze his own actions. The use of resources is free only in the sense that nature herself will pay for the removals made by man. But this she will do only up to a certain point. What that point is has never been determined except through direct experiment, a costly method.

Evolution of Land Patterns

When ancient Egyptians, stirring the black muck cast vernelly upon the banks of their great river, became aware that production along this fringe exceeded that from the adjacent regions higher up, they moved their tilling implements down to the water's edge immediately after the spring freshets and concentrated their labors there, leaving the higher terraces to the devastations of their ruminants.

As time went on, the Egyptians learned more and more how to nurture their land properly, and evolved many characteristic techniques. It is not our purpose, however, to follow every change in the system of land use, for to do that would be to recount the history of the Nile valley dwellers

from that time down to the very present, a project already ably carried out by Emil Ludwig. It is our aim merely to observe that the handling of the land is an evolutionary process, ever changing, ever calling for new adjustments to meet pressures of new factors or of old factors acting differ-It calls for a variable treatment backed by a philosoently. phy that "all things are passing" and that as far as the land goes, one cannot apply any so-called system of use indefinitely without adjusting for changed conditions. What passes for white today will be black as coal tomorrow. Furthermore. the gravity of the problems of the ancient Nile dwellers must be multiplied many times to represent the status which faces the community dwellers in the modern world today, where conditions of population, the impact of government, and the huge advance in knowledge as to the technical qualities of the materials which are being used (the soil, the forests, etc.) are all very much more incapable of easy solution.

The particular topic to be discussed in this paper that of rural zoning - is but a manifestation of the trend to
organize resources so that materials and forces will be able
to work for the interest of the individual and of the community in such a manner as will give to each force an importance
commensurate with its influence upon man's environment, while
at the same time preventing other forces from being squeezed

^{1/} Ludwig, Emil: The Nile, Life Story of a River. The Viking Press, New York, 1937.

out of the picture, or, Frankenstein-like, from growing to abnormal proportions and getting out of hand. It is in this capacity that we will consider the problems of rural zoning and seek to analyze it as a factor in the organizing process, observe its effects, and attempt to indicate whether or not it is moving in the general direction of this long-time obsective or not. Also, it will be our aim (balancing the rural zoning idea with other measures trending in the same direction) to determine the degree of its importance in this same process. In other words, to understand to what degree of effectiveness rural zoning actually attains in achieving the general objective, or to what degree it is possible for it to attain in the future.

The American Problem

Before actually coming to grips with the intended topic, let us first make a broad general survey of the cultural pattern of the country in which the technique of rural zoning is developing. The American Scene is as different from the primitive Egyptian Scene we have just sketched as the ancient Egyptian is different from the American citizen. Time has done considerable "marching on" during the intervening centuries and whole races of people have moved over the faces of continents; highly individualized cultures have been built up, lost, destroyed, or changed hands; ideologies have been born to be carried along with the human wave or in

other instances to be dissipated in a breaking-up of the social units which carried them; minds have been trained upon the organization of the material stuff which confronted them on every side to the end that an inside knowledge was gained of the structure and function of natural objects, the working-out of physical laws - a subject pursued so diligently that many forces were harnessed and bent to performing tasks that man himself had hitherto performed. mankind had found the universe not only a fit subject for philosophical contemplation, as it was first considered by men of learning, but also a fruitful field for scientific investigation. Finally, it was discovered that the forces of universe could be made to do some of man's work, if proper measures were applied. Having discovered and applied the facts of nature to lighten the burden of environmental resistance, man is now confronted with the necessity of adjusting the forces which he has brought under his command so that they will each play a proper and allowable part in his economy In other words, rather than mere application, he is now brought to the realization that a wise application is necessary if a state of enjoyment is to be maintained. mature world arrives at the conclusion that, whereas a mere contemplation of things brings no material comfort, an injudicious use of knowledge can make things very uncomfortable. Might it not be that the present day fear and rivalry of nations is but an indication that most peoples are becoming

more and more conscious of the necessity for securing to themselves the materials which they will need to make these natural forces work for them in, shall we say, the manner to which they have become accustomed. The trend towards a workable organization of force and material is thereby cut across by the factor of national interests - a characteristic of the human species as ineredicable as the instinct for life itself. The process of organization is taking on the color of national culture, each nation seeking to organize in its own way, and to include as much of the material stuff of the universe as possible.

But whether or not the world is entering upon a period of <u>organization</u> (or merely undergoing the final adjustments of a period of <u>application</u> of forces), and whether or not international conflict is a sign or even a necessary accompaniment of such a trend, is not for us to consider. We have an appointment right now with the solid American citizen of whom we have spoken, for the purpose of ascertaining what his reactions are to the vest over-all social trends of which he is a part.

Let us follow the American citizen as he progresses through all the successive, historical phases of his country's development. We will note that he contributes less to the contemplative attack upon environment than he does to the discovery and application of natural forces to make his life more comfortable. Looking up from his work, we notice that our

citizen is startled to find that, in spite of the abundance of physical things, the world is not universally enjoying the benefits of discovery and application. In fact, right here in his own country he observes that forces which he had thought to be under control, and had left to contribute automatically to the welfare of his countrymen, had somehow finally worked to their disadvantage rather than to their Now it is necessary for him to go back over much advantage. of the ground he had so rapidly traversed and seek cause and effect for the disturbances which he notes in the working-out of the forces which he had brought to serve him. He sees, upon close analysis, many instances where he did not use enough foresight. other instances in which he applied his newly-acquired powers in the wrong direction, and still other instances where he allowed the power to be applied for too long a time in a particular way.

Spotting the defects, it is then in order for him to apply remedies where possible, divert poorly-applied forces which still act inimically, and judiciously to organize and apportion the available resources.

Before abandoning this general treatment, one more point needs to be brought out. In what way, or ways, is this trend towards organization (if there be such a trend) manifesting itself? What media are at hand for man to make use of in making the readjustments called for? What action is needed?

One way would be, as we have indicated, by the exaltation of nationalistic philosophies, probably involving war. That war never permanently readjusts has been sufficiently demonstrated to all men, and as completely disregarded by them down through the ages. And since national ideologies are today at a high point of intensity, it is no idle conjecture to suppose that, in this instance of organization (which, because of modern conditions of instant communication, quick transportation, and overlapping economies, involves nations more intimately than ever before), recourse to direct conflict will be had.

But there is enother medium in which organization can be worked out. It is currently being used and whether or not the more cataclysmic process of war is also enjoined, it will no doubt continue to be applied by all sober nations. And this medium is that of the orderly processes of government. Government, either democratic, in which restrictions and regulations are self-imposed, or non-democratic, in which the restrictions are not self-imposed, may be used either as the medium for securing the reorganization of forces and materials which we have seen is most necessary. Which of the two kinds of government would be more effective in obtaining the results desired is, of course, another question.

As most of us will live and die on American soil, we shall naturally be concerned henceforth only with the democratic form, or, strictly speaking, "the republican form". Under this system we shall find that, reassembling our forces for a

attack on the problem of influencing our environment for our own welfare is a slow, complicated problem, requiring much study and investigation, inevitably some experimentation, and, perhaps most of all. education of the people to the situation as it exists. Throughout his history, the American citizen has shied away from the exhortations of government. restrictions imposed, the better he liked it. Especially as he was engaged in working over the physical materials of the country, or in utilizing the forces arising from these natural resources, did he dislike any governmental authorizations to interfere with his freedom of action. Thus, in the early days he tilled his farm any way he saw fit, cut into the forests with wentonness, and generally helped himself to whatever he wanted in the matter of the gifts of nature with a firm belief in his inelienable right to do so. In the matter of getting new land in fresh areas, virgin to the plow, his government followed his lead and dispensed agricultural, forest, and mineral land with a free, over-generous gesture. The lack of wisdom in this attitude was perceived by government too late. Most of the damage had been done. Readjustment began slowly and painfully with various acts of government, such as the Homestead Act of 1862, the Timber Culture Acts of 1873 and 1878, and others, which, although they did not control the abuse efficiently, were nevertheless designed to do so. stalwart citizens whose main interest was timber were dipping with gusto into the national timber stocks, completely their

own bosses. They exhibited extreme "irritation", as Jenks Cameron puts it (3), when a remote government sent investigators like Ike Willard to snoop into their affairs. Willardism was extremely distasteful to them. Yet, gradually the wisdom of governmental control was recognized, and controlling legislation appeared in the form of the Timber and Stone Acts of 1878, the Act of 1891, which gave power to the President to set aside "forest reserves", and in the Act of 1898, authorizing regulation of public reserves. It is manifest today in the sentiment (in some quarters) for public control of private forest lands.

Thus we see that, while the object of our scrutiny has been apathetic to the interest which government has displayed in the materials to which he had previously enjoyed free access, nevertheless the move to organize these materials into a source of genuine benefit to the whole people has gone forward.

Defining Rural Zoning

The purposes of rural zoning are partly coincidental with those of urban zoning and partly of a different nature. Like urban zoning, rural zoning restricts uses of and sizes of structures to prevent specific abuses and provide for a decent standard of health and safety to the people of the community. But further than this, rural zoning seeks to establish a community pattern that will provide the greatest

amount of security and happiness for the dwellers therein. This is a direct object of the provisions of rural zoning ordinances, whereas the city measures do not specifically aim at such a goal - although, to be sure, the ultimate objective of all law includes that of promoting the general welfare according to the principles laid down by the nation's founding fathers.

Putting into a few words the exact meaning, or rather the comprehensive meaning, that is conveyed by the terms "rural zoning" is not an easy matter; yet the majority of definitions presented here concur with notable uniformity. They are gathered from various sources.

The notation that rural zoning is characterized by "a heterogeneity of homogeneous districts" is set forth in Land Use Planning Publication #10 (20) and establishes the objects of the measure as those of securing the general welfare to the public. Specifically, these objects are ten in number, which, because of their inclusiveness, are hereby presented:

- 1. Conservation of natural resources
- 2. Flood control
- 3. Protecting the food supply
- 4. Fostering of local industries
- 5. Conserving land values
- 6. Strengthening the tax base
- 7. Economy in public expenditures

- 8. Facilitate police forces in health protection, preserving the public peace, safety, and comfort, and to afford better recreational opportunities
- 9. Foster more wholesome community spirit, femily values, and good citizenship
- 10. Improve situation for home-owner and to stabilize the population

W. A. Rowlands (13), in referring to the rural type, states that "zoning is a form of public control over private property in the interest of the public welfare", and expounds it as "a promising, an inexpensive, and a thoroughly democratic method of regulating land uses."

Speaking of zoning in particular as it applies to cutover lands, F. B. Trenk (17) states that it "aims primarily to
so control and direct the use of lands, public as well as
private, as to insure the taxpayer that he will not be made
to suffer, through his tax bill, from either the greed or the
bed judgment of others."

Hendrickson (8) refers to an eminent legal authority on urban zoning, in establishing a definition of it. This legal statement holds that "zoning is the creation by law of districts in which regulations, differing in different districts, prohibit injurious or unsuitable structures and uses of structures and land." This is the standard definition to which most references are made in the current literature on the subject.

^{1/} Bassett, Edward M. Zoning. p. 20, National Municipal League, Technical Pamphlet Series #5, New York, 1932.

In the thorough discussion of rural zoning contained in <u>Making the Best Use of Wisconsin Lend Through Zoning</u> (23), a circular put out by the Extension Service of the Agricultural College of the University of Wisconsin, the standard definition is elucidated in the following terms:

"Although the immediate reason for zoning is the control of land as a means of keeping a check on and eventually reducing public expenditures, another important objective is the regulation of land use to secure the best utilization of our natural resources, not only in terms of money, but of human life and happiness."

This "airplane shot" of the field under observation contains the basic essentials to an adequate conception of it. It shows us that rural zoning is a double-barrel charge of "organization" - one barrel shooting a heavy concentrated charge at an immediate financial situation, and the other barrel scattering its shot over a broad social landscape.

The principal states to pass the Wisconsin form of legislation enabling counties to resort to zoning are: California, Indiana, Maryland, Michigan, Washington, and Wisconsin. In Virginia and Mississippi, specified counties have been authorized to zone and, after some constitutional difficulty, Tennessee has entered the ranks. All states permit cities to zone.

Operation of the Zoning Process

That the field of action is broad, even in a strictly geographical sense, may be corroborated by referring to a list of those states which now employ some form of rural zoning. In most instances, the enabling legislation is similar, being an authorization to the counties of the state

to go ahead with zoning plans. These, for the most part, consist of a compilation of field data, a separation of areas of homogeneous structure and use into districts or zones. each zone carrying with it specific regulations as to what use shall be allowed therein, and provisions for administration of an ordinance. The three major types of districts recognized so far are those adopted by the Wisconsin counties, entitled forestry zone, recreation zone, and unrestricted Land falling into the first-named district may be utilized in the pursuit of commercial forestry or, of course, it may be allowed to remain idle, according to the owner's disposition towards this activity. The land may not, however, be used for any other purpose such as farming, mining, or other industries. It is reserved for forestry pursuits. Much of the lend falling into this category, in the Lake States particularly, is cut-over land; in fact, all the land is part of, or contiguous to, the cut-over lands.

The <u>recreation</u> <u>zone</u> contains land that may be used for summer home development, resorts, vacation centers, and recreational purposes of all sorts. Forestry may likewise be undertaken in this district, although it is of secondary importance from a practical point of view, as lands falling into the recreational classification are those to be found bordering upon or in the immediate vicinity of lakes and streams.

The unrestricted zone contains all the remainder of

the rural land of the county, and has no specifications as to what the land may be used for. Actually, farming is the major activity in these areas. Other activities, industrial enterprises, mines, or factories, or even forestry and recreation, may be engaged in except as modified by public health or nuisance regulations.

It is important to understand the part played by the so-called "conforming" and "non-conforming" uses in studying the social consequences of zoning. It is obvious that the mere establishing through legal description, or by the drawing of lines upon a map, of districts to be devoted to specified uses does not change the real situation of the land one iota. Being obviously undemocratic to demand that people immediately alter their activities to conform with the regulations covering the district or zone in which their land happens to fell, it has been made a principle of zoning to allow uses to continue after the enactment of an ordinance in the same manner as before. If this use happens to agree with the uses approved for the zone in which it is carried on. that use is termed "conforming". If it does not concur with the zone requirements into which it happenes to fall, it is termed "non-conforming". Thus, operating summer cabins in a recreation zone would be a conforming use, while farming in a forestry zone would be a non-conforming use. Constructive action toward the objectives of zoning is obtained by the requirement that is usually stipulated in the ordinance itself.

i.e., that non-conforming uses once discontinued for a certain period, usually specified as one year or the time between successive assessments, may not be reestablished in that same zone. That is, provision is made that all new uses which are undertaken in each particular zone shall be conforming ones. Thus the future is made the testing-ground of zoning. Of course. many legal technicalities and details are resorted to not only to insure the present owner freedom from restriction in pursuing his present activity whether it be conforming or not. but also to insure that the aims of the zoning process will be attained by the regulation of the future development of the land. The County Clerk and Register of Deeds are the officers usually made responsible for the listing of conforming and non-conforming uses and for the filing and publication A Board of Adjustment is provided to hear parof the same. ticular cases and to allow exceptions to the strict letter interpretation of the ordinance when it is deemed to be inequitable to the individual applicant. The Sheriff usually gets the job of turning in a list of non-conforming uses to the Recorder.

In fact, it may be said in brief that all the detailed regulations and safeguards placed around the zoning measure, at least by those counties which have already established them, will serve to insure that the broad social purpose of zoning be observed. This, therefore, becomes the essential reason for employing such an instrument to the everyday

affairs of men. It has now reached such proportions as to justify the application of the term "trend" to it. To change the figure, rural zoning may be pictured as a tributary stream leading into the river of social organization. social organization which is particularly affected by the stream is that of the community. In other words, the name of the tributary valley which is under our consideration is. shall we say. "Community Valley". That of the main drainage basin into which it flows we might term "Social Progress River". We may notice, upon close examination, that our tributary valley is being acted upon by many forces. as in nature, the wind, the rain, temperature changes, earth movements, etc., all contribute in giving the valley the form and structure it is to possess, so too is "Community Valley" acted upon by multiferious forces, each of which lends its importance, greater or less, in shaping the destiny of the community. Certain natural forces and factors, such as the amount of precipitation, presence of water power, or mineral resources do have a very positive effect upon the form of the community within their midst, but physical forces are not alone in their influence. Economic, social, and cultural forces are likewise at work, and it is the combination of these powers which will be responsible for the shape which "Community Valley" assumes.

Unfortunately, these various forces do not perfectly intermesh. They are often opposed one against the other or

in various combinations. Thus the economic force which we recognize as the "personal profit motive" has so acted, in the case of the denuding of the lands of the Lake States of their forests (potentially a physical force), that this latter power has been so changed in nature as to be one of the chief reasons for instituting the regulation of forces which we are considering - rural zoning. Likewise, social forces, such as a heavy and unprepared-for movement of population, very often may act unfavorably upon the cultural activities which were previously established in that particular area. It is the trend toward the organization of all these forces, so that they will complement and work in hermony with one another so far as possible, that the zoning movement represents.

It is not to be expected, perhaps not even to be desired, that all these forces should be brought under absolute control. Communities would then cease to be a vital sphere of life and become instead test tubes for some superintelligent and super-powerful race of administrators. It is quite reasonable to suppose, however, that ways and means for making necessary adjustments may be found, and that the outstanding clashes between opposing forces may be mitigated by appropriate measures. While perfect harmony may not be attained at any time, on the other hand, major disturbances in the community scheme may be practically eliminated. Not through a system of iron-clad checks and regulations destined

to maintain rigidly the "status quo", but through flexible mediums such as zoning should be, which will be able to change correspondingly to cope with new conditions, will this be attained.

Other Measures Applied to the Land Problem

Aside from zoning, other measures in this category should be mentioned. The work of the Soil Conservation Service of the U. S. Department of Agriculture in establishing soil conservation districts for the purpose of preventing further erosion and leading agricultural land back into good usage is distinctly of this type. It is another activity, in reality quite similar to zoning, which is at work in "Community Valley" tending to facilitate the passage of the tributary stream toward the River of Social Progress. deals very definitely with a natural force, that represented by the soil itself (from which, it has been said, all life springs), and strongly and directly affects the community. The process used in this connection is interesting. As in the case of zoning, a legal assistance is invoked. Conservation districts are established by law upon the application of 25 occupiers of land and subsequent approval of this application by a majority of the occupiers within the territory affected. Once established, the rules covering the district apply equally to all persons within it. rules are simply the regulations necessary to insure proper farm husbandry in the interests of soil conservation and the

use of certain technical procedures for the general protection of the land from erosion. Enforcement is placed, not, as in zoning, with the county officers, but with a board of supervisors elected by the farmers themselves, its membership derived from their own ranks. The social force of this arrangement is significant. Although supervised by federal and state agencies, it is nevertheless a striking instance of local self-government, this time undeniably simed at the broad social organization set-up we are studying.

Direct subsidy through various federal agencies in an attempt to bolster farm credit may be considered as another "directional measure" tending to regulate the course of stream flow in "Community Valley". The efficacy of this method, while much in question, is nevertheless evidence of the same trend as indicated in the first two measures. That is, it is an attempt to balance the communal forces so that major disturbances, in this particular case economic ones, are eliminated or at least reduced. The Farm Credit Administration, Federal Housing Administration, Farm Security Administration, Rural Electrification Administration, and the Agricultural Adjustment Administration all represent trends in this direction. The forces, economic and social, which they are designed to cope with, are so very complex that as yet no satisfactory remedies or instruments of control have been worked out. This problem is vast, world-wide in its complications, and will probably be about the last force to admit of management. And until some measure of control, at least,

is established, the goal of community betterment will stand in abeyance.

The very extensive system of land use planning which is carried out under the direction of the U. S. Department of Agriculture through various bureaus cooperating with state agencies is likewise a factor in "Community Valley". A very definite one, too, which, although it has not yet progressed far beyond the stage of formulating plans, is nevertheless significant to the social future of the community. It is claimed that every agricultural county in the United States is participating in a land-planning program to some degree at least. That this will eventually prove a very active force in shaping our "valley" can hardly be doubted. A judicious use of land stamps a community with a definite pattern that will inevitably leave its mark upon the social and cultural structure.

may be also classified as one of the "directional measures".

In this case, legal districts are established for the purpose of regulating the use and distribution of grazing lands and to insure the conservation of the basic resource - forage (18). This type of measure will have less effect upon the community itself, as it is limited in its application to the one resource. The economic effects of good management of any resources, no matter what they are, will eventually be felt upon the community which depends upon that resource. An

historical inquiry into the problem of "ghost towns" has made this an established fact.

In brief, it may be said that all these measures rural zoning, soil conservation, farm credit subsidy, county
planning, grazing districts, and public purchase (which will
be discussed later) are measures instituted in the interest
of the general community welfare, assist in the rectification
of past abuses, permit future developments only along desirable
lines, establish more control over the use of land by the
individual than has been the custom in the past, and seek to
organize physical, social, economic, and cultural forces into
a pattern which will permit of a harmonious development of
community life and spirit.

Services Rendered by Zoning

Zoning strikes at the root of the problem more directly than do some of the other measures. Whereas crop regulation, plowing under, extension of credit to the farmer, or relocation of the isolated settler are concerned with remedying certain situations after they have occurred, zoning will seek to prevent such situations from developing in the first place by carefully regulating the development of land. A skillful guiding of land uses in the right direction initially should do much to obviate the necessity of employing some of the other mentioned schemes as remedies at a later date. Zoning,

See Samuel T. Dana's "Forest Tragedy; the Rise and Fall of a Lumber Town" in Munsey's magazine, April, 1917, pp. 353-363 - also "Forestry and Community Development", Washington Govt. Printing Off., 1918, by the same author.

which aims its forces at the basic resource, land, recognizes that it is the use of the land and not the land itself which is in need of care and supervision. Zoning regulations seek to provide this regulation.

The direct action of zoning in attacking certain maladjustments in the community organization may be illustrated by citing the example of Brown County, Indiana $\frac{1}{2}$. county, it was required by law that all State school funds should be invested only in farm mortgages. This was done in en indiscriminate manner, to the end that fermers on submarginal land received a good share of this assistance. sequently, their farms, which could not be supported through the natural propensities of the soil, were perpetuated by reason of this legal mandate and continued to be a drain on the community resources, human and financial. When the unfairness of this arrangement became obvious, the mistake was It may easily be seen that, had rural zoning been in force sufficiently long to accomplish the removal of all, or nearly all, the poor farms from submarginal lands, the legal authorization to invest the funds in farm mortgages would not have had to be repealed. It would have operated for the benefit of farmers on the better types of land - those which were capable of supporting the ones who worked them without being dissipated in the direction of the non-incomeproducing lands. This is the type of service which we should look for zoning, and other measures in a similar classification, to perform. At the outset, there may be little

^{1/.} Soil Conservation. Planning for the Land Utilization Program. p. 45. Aug. 1938:

opportunity for such service, because of the slowness with which democratic measures applied to land use take effect. The future should reveal to us the true value of these activities as more and more of these real services and functions come to light. (14).

One other such service incidentally performed by zoning, in the slow process by which it operates to mold the social structure of the community, is that of eliminating at least one great fire hazard from the backwoods area. People attempting to farm on the poor, cut-over areas, such as the northern counties of the Lake States, are the cause of many fires being started each year. Living, as they do, in what is essentially forest land area, the fires which they cause kill off reproduction, destroy whatever timber value may be present, and lead the way to rapid deterioration of the soil itself.

Combination of Measures is Important

But while zoning attacks many problems directly, holds out hope for many benefits in the future not now forseen, and is democratic and applicable under existing forms of government, it can in no sense be termed a "cure-all". As has already been suggested, there are many ways in which it is inadequate to the problem at hand, such as in flood control over a broad area. Even in such an instance, however, zoning has its place as a supplementary activity, as will be shown later. Right now, the point should be brought out that total

dependence can not be placed in zoning for regulating our figurative tributary stream flow. It is the combination of measures that will prove effective in the end, and over-concentration on any one of them will likely prove less profitable than expected.

Taxation Problems Related to Zoning: Take, for example, the matter of tax delinquency. It was the excess of tax delinquency in the northern counties of Wisconsin, together with the consequent high per capita cost of governmental services (which in turn were related to the uneconomical distribution of "poor-land" occupiers) which was the motivating spark that pushed the rural zoning principle through the legislature in 1923. It was likewise the main reason for the acceptance of the amendment in 1927 which gave the power to zone to all counties generally.

The acuteness of the situation may be realized from the statement of the Wisconsin Tax Commission as quoted by the Wisconsin Special Circular, "Making the most out of Marinette County Land" (22). Here it is shown that the rate of tax delinquency has mounted steadily from 1915 to 1929, when a total of \$279,653.58 was on hand. The delinquency average for the whole county for the year 1928 was about 10% of the general property tax. Five of the towns in the worst predicament turned in rolls that were 40% delinquent which represented a land area comprising 58% of the total delinquent land area in the whole county. This county had one of the

three highest tax rates in the State - 39 mills. The tax rate for the county increased 68% over a 13-year period and the assessed valuation also rose, but not so high as the rest of the State.

"The cost of maintaining a town", the Tax Commission Report says, "with its roads and schools is often out of proportion to its assessed valuation, \$30,000 being not uncommon. When this tax has to be raised from a valuation of \$500,000, it means a 6% rate. The hardship of this state situation cannot be relieved so long as the practice continues of creating new towns and villages of small area and poor territory without reference to their resources for maintaining separate government." (22)

Further evidence of the inevitability of tax delinquency under such circumstances may be gathered from the report of the Wisconsin Commercial Forestry Conference in 1928, which gives some actual figures on the cost of maintaining isolated farms. Cost figures were collected on five specific farms with the following results to the township involved:

(5 farms, 320 acres, 80 acres cleared)

RI	EVENUE			
Assessed	value	of	the land	\$ 3,200
- 11	ŧŧ	**	improvements	1,500
11	†1	11	personal property	500
			Total	5,200
T: Te	ex rate otal fo	9 5% or t	en-year period	260 2,600
E	XPENSES	3		
Construc	tion of	15	miles of new town road	7,500
			pupils	1,000
Road main	ntenano	e,	\$30/mi. or \$450/yr. for 10 yrs	4 , 500
School of	peratio	n í	For 10 years at \$800/yr	8,000
•			expenses for 10 years	\$21,000

Expenses are over eight times the amount of taxes collected.

Such a condition is patently out of line with all principles of economy and good government. Unfortunately, just such a state of affairs exists in many of the townships of the cut-over areas. That something needs to be done is obvious - the question is, will rural zoning prove an effective measure in bringing about a readjustment? A practical answer to this might be found by looking up the records for the 23 counties in northern Wisconsin that employ rural zoning and seeing whether tax delinquency has diminished or increased with the institution of the zoning ordinance. Unfortunately, scarcely ten years have gone by since these measures were first adopted, which is hardly time enough on which to base a fair judgment of the capabilities of a slow-moving, long-term program such as zoning really is. Furthermore, the influence of the economic depression would have to be discounted to arrive at a fair judgment, and this is practically impossible. Many years will have to go by before the effects of zoning measures (especially regarding the rate of tax delinquency) can be safely appraised. On the face of things, it would seem safe to observe that the enforcement of zoning restrictions must have necessarily checked the upward swing of delinquency insofer as land settlers, especially urban people driven from the cities through the pressure of the economic collapse of industry, were prevented from taking up quarters on forestry or recreation type lands. Since it is these classes of land

that have shown the greater percentages of tax delinquencies rather than the unrestricted areas, it follows that the keeping of the former lands out of cultivation has also tended to control the increase of tax delinquency for the town or county as a whole.

Just how much tex saving to the individual taxpayer will result is still conjecture. On the one hand, we see zoning will help to eliminate delinquency, bring township budgets into a more healthy state by allowing for curtailment of public expenditures for roads, schools, and other services in forestry and recreational zones. These things should act to lower the individual's tax bill insofar as the budget is made more economical. On the other hand, these factors in themselves do nothing to insure that the actual taxes to be paid by the individual property owner will be held at any particular level - low or high. The fact that settlement is being confined to an area of concentrated activity, principally farming, in which all the services and amenities of community life are arranged in close proximity to one another, and in which the area involved is relatively small, is also argument to show that taxes might really go up. The close-knit arrengement and concentration of properties makes for high assessments, and high-priced property will be considered to merit high-priced services, so that while the actual budget may be reduced, the rate of taxation might rise higher than before. This is probably an extreme view of the matter. Nevertheless, the raising of property values in one area, at the same time

eliminating them in other areas, while it will tend to decrease the cost of services through a limiting of the extension of these services over the whole county, will also be accompanied by a trend for more expensive services in the more limited area in which they are now to be applied. In other words, our concentrated community will likely demand a good, wellmaintained dirt. if not a hard-surfaced, road past every farm door, whereas when farms were scattered over the whole county, many of the farmers got along on poor second- or third-class roads, a helf-mile, a mile, or even farther, from a hard dirt or surfaced road. The individual backwoods dirt farmer, being en individuelist of the first water and having little mutual association with his neighbors could not expect his demands for road improvement to be heard before those of the more populated farm-valley community on the good lands of the county. This, of course, is considered an equitable procedure by practically everyone, but therefore cannot one expect that, when everyone is living inside a limited, zoned area, their collective demends for improvements in roads and other services will have to be considered as first-class demands? And since each man's desires are now united to those of not only his nearest neighbor, but of everyone living in the same zone as he, it is logical to suppose that the impact of these demands upon the local government will be greater than ever before. Government will find it necessary to pay closer and closer heed to the voice of the governed, and it is certain, in the

light of modern day trends, that these requirements will move in the direction of more and higher-priced services. More of a tendency toward better developed, higher-priced ones than toward the institution of new ones will be evident, although some increase in both directions is indicated.

Thus the effect which zoning will have on the tax bill for the individual is rather unpredictable, depending upon such things as the willingness of government to take on a greater burden of services in response to the demand for them and also upon the effectiveness with which the zoning program is enforced and the length of time which will be necessary before non-conforming uses can be eliminated. Then too, the point should be remembered that, while the tax bill itself may be reduced in terms of dollars, the burden to the community dweller may be actually greater if prices of commodities go up proportionately greater than the earning power of the land occupier.

It is a recognized fact that the income-producing power of farming land (of good quality) is a relatively stable factor. Increases can come about through more intensive farming measures applying more machinery, use of fertilizers, more judicious selection of crops, or a rise in market prices. The first three measures do not bring a great increase in production to good land, considering the cost of applying them while the last factor is usually attendant upon so many other influencing factors that one cannot be sure that the increase is real or

that it will be sufficiently long-lived to permit of benefits being derived. On a percentage basis, poor lands would show a more positive reaction to the above forces than would the better lands, elthough in the end, they would probably not rise to the level of production attained by the latter. community fermer within our zoned area, having brought his farm to a state of high production, cannot expect great increases in production (and of farm income in general) thereafter, even though he applies high-priced factors to his land for that nurpose. He will probably consider it much more satisfactory and economical to keep his farm going along at the uniform high rate of production that he has attained through careful husbandry in the past. His income becomes stable so long as outside conditions do not change. Should the market for his produce become curtailed and prices remain low, he is evidently going to take a "sock in the chin" - or rather in the bank book. One measure that he previously had recourse to - that of farming over a greater area to enlarge the tonnage of his production to make up for the slump in prices - will probably be denied him because of the concentrated land use pattern under diversified ownership in which he finds himself. Or if there were enother "forty" close by that he could buy up, he probably would find that it had increased in price due to the influence which zoning would have in boosting up property values.

How, then, under this system, is the unrestricted zone dweller to keep his income stable? One answer, at least, is

points directly to the position that the other zones, forestry and recreation, will play under this set-up. Of course, it is quite probable that some such persons would seek outside work in urban areas or in industrial activities present in the unrestricted zone itself. But it can be expected that a large percentage of them would, by temperament and because of the convenience, be attracted to employment opportunities in the forestry and recreation zones.

Will such opportunities exist under the rural zoning set-up? To what extent and under what conditions? These are questions which the advocate of the zoning principle would do well to look into. This particular angle will be more fully discussed later in this paper. It is the aim of the moment simply to point out that, while the governmental budget is in practice reduced through zoning, the tax bill will probably not fell in proportion to the reduction of the budget, since the assessed valuation of general property may be increased by the close-knit community arrangement and because tax rates cannot be expected to fluctuate accordingly - they never do. Second, that the tax burden upon the individual depends upon many fectors originating outside of the community and may become heavier than expected, even if a favorable tax rate and low budget policy are in effect. Third, the income from these lands in the unrestricted zone may be expected to reach a high point of stability (in a shorter time than would be expected

under a non-zoning set-up), and there will be consequently a need to provide opportunities for other employment to assist in maintaining this stability.

Regardless of what system or combination of systems may be employed in the process of community reorganization, one supplementary activity which will be in crying demand in almost every case is the making of tex adjustments. The tax problem in communities where a multiplicity of resources are being developed is a ticklish one. It has proved an almost impossible task to distribute equitably the tax burden over the various economic classes of property owners represented by farmers, business men, industrial and forest enterprisers, as well as any others who might be present in a given community. Assessment methods have not kept pace with the changing nature of the component parts of the taxable wealth of the ordinary unit. These methods have been built up too much along lines of tradition. It has been reasoned that, because Farmer Brown's grandfather paid so much taxes in 1899 and because his father paid so much more taxes in 1919, Farmer Brown must pay a still further increase in 1939, because he is working the same farm and because evidently the prosperity of the community has increased over this period and correspondingly its budgetary needs. As a policy of citizen "appeasement", shall we say, ectual assessments have been held below the sale value of just about all classes of property, but tax rates have been manipulated so that very often unjustifiably high percentages of annual income have been demanded. Forest lands have been well

known as an example in this latter class. Since the harvesting of forest products is generally an intermittent activity, the application of an annual tax based on a single assessment is obviously imposing a burden on this type of land as compared with farm land from which an annual income is derived. Trees take many years to grow from seedlings to maturity, and as they grow, their value grows with them. It is patently unfair, barring sustained yield management, to level an annual tax against such properties based on the value of the full-grown mature forest, and yet this is actually what happens in the majority of instances. The result is hasty stripping of the land.

Balancing the value of farm land, where the wealth is drawn directly from the soil, against urban or suburban properties where the income is produced from sources not directly connected with the land itself is another problem of assessment. More equitable tax measures, proceding in the wake of adequate tax studies of each specific taxing unit, should be applied as soon as authorities can be sure of their basic reasonableness. Counties having extensive areas of "wild lands" or cut-over lands, of which the Lake States would be typical, are especially in need of such study and revision. The actual value of this type of land is particularly in need of clarification. How much income can be expected from these lands if left to private initiative and in what manner will the income be derived - from forestry, from farming or grazing, or from

recreational development? The tendency revealing itself at present is to withdraw large quantities of such lands from private development and to place them under public control in the form of state parks and forests, county forests, game refuges, and, in some instances, as federal land, particularly as national forest territory. This brings up the question whether or not this is the best disposition of "wild lands" and if so, how is the tax base of the taxing unit to be upheld?

A glimpse at these ramifications of the taxing problem serves to show its complexity and to give some indication of the necessity for bringing about an equitable distribution of the tax burden among the various classes of rural property.

Hammar's Plan: Another instance of the inadequacy, possibly even the undesirability, of the common rural zoning type of restriction might be mentioned. A plan has been put forward in Missouri (6) under which the submarginal land problem is tackled from the opposite direction to that represented by zoning. In this case, the poor-land farmer is directed, and plans are broached to assist him, to combine ferming, forestry, and grazing as cooperative enterprises upon the one unit of land.

Such a combination on submarginal lands would result (if carried to its logical conclusion) in a community constructed almost directly in contrast to that brought about through application of the zoning principle. Instead of a concentration of farming activities on the approved better soils of the county, farmers would be scattered throughout

the whole area, plentifully interspersed on the cut-over lands where the combination can be most easily worked out. arrangement will call for an organization of the community, handling of services, etc. quite different from the organization under zoning. It will no doubt call for a larger budget than is contemplated by the zoning idea, but the total income to farmers of the county may be larger than under such a plan. At least, a larger number of farm operators may be expected to occupy the land of the county, and if markets are found for their crops, livestock, and forest products, the total income of the county may also be expected to be larger. That such a plan will reach to such ultimate proportions is not entirely likely, but is at least theoretically tenable and would seem to indicate that rural zoning is not the only pertinent measure that can be applied to assist submarginal land occupants in enlarging their incomes.

Suburban Land Division and Zoning: Another line of action complementary with rural zoning is the movement to establish controls over land subdivision and development in suburban areas. The lack of such controls has resulted in various irregularities and problems in land use and land tenure which have only recently come to the fore. The relation that exists between measures for control of suburban development and rural zoning may now be set forth.

In the first place, it should be mentioned that our statute books have long remained free from constructive measures for suburban land division. In the first zoning ordinances, as instituted by municipalities beginning in the fourth quarter of the 19th century, the zoning principle was limited in its application to areas inside the corporate limits of the city enacting the measure. It was not until the tremendous pressure of population within the larger cities forced an overflow onto the surrounding areas adjacent to the city's boundaries that a suburban problem was created. At first, the process of settling suburban land was a purely commercial venture with little or no regulation to restrict it. Land-selling agencies acquired large tracts of outlying land and garnished them with those semi-improvements which were designed to attract the eye of the unwary. Street lines were laid down, the available land was divided up into lots usually too small in size, and an attractive map and brochure was published, indicating the extreme foresightedness and economy that any individual would be exhibiting who decided to purchase one of these lots. great many instances, these lots sold "like hot cakes", and suburban areas were formed with houses crowded together and with little regard for layout or design. But the big fault in this arrangement was in the fact that when the lots were sold, and even when the lay-out and design were pretty good, there was no way of insuring the development of services and ordinary governmental functions to the nascent community, because the land division would usually lie outside of the jurisdiction of the neighboring municipality. Consequently, the new settlers might have to wait a long time to acquire a sewer system,

electricity, water facilities, and other such necessary services. Prompt action on such matters is not always possible by city councils or other municipal governing bodies, and so suburban developments were often left in a semi-developed state or even abandoned. This was especially true as the suburban land division scheme took on more and more of a speculative character. Real estate companies would snap up all available land areas immediately adjacent to a large industrial city and subdivide it regardless of its suitability for the purpose in hand. Many lots, naturally, could not be sold, and so were allowed to fall into tax arrears. Speculative land companies could not make a profit unless they had a large turnover of the land. Tax payments could not be long sustained under their system of wholesale purchase and disposal of land.

The question is, what has been done, or what can be done to remedy the situation? As to the former point, it may be repeated that regulations have been generally wanting up to the time when the suburban area becomes a part of the city. At that time the urban zoning principle, if it exists therein, can be applied to the newly acquired lands. This has been done very often in an unwise fashion. Lands have been heavily overzoned for multi-family dwellings and business, with the result that natural industrial development has been retarded and the land protected by the zoning laws allowed to remain unutilized. This gauging of the requirements for zoning, i.e., for the residential and commercial demands for land, is one of the prime considerations to be given to the study of the problem.

Lack of information as to the factors behind such development may be stated as the cause of the previous trouble along with the impetus given to speculative land investment by the period of increasing prosperity from 1900 to 1929.

In order to deal effectively with the situation, it is necessary to study intimately the factors bearing upon suburban land settlement. Put briefly, these factors are: a. rate of industrial expansion; b. type of expansion (centralized or decentralized); c. population movements from country to city and vice versa; d. economic factors such as the salary levels of industrial workers, rents, the price of suburban land, and the standard of living. It may be possible to evaluate and correlate all these various factors to the end that the proper amount of suburban land will be set aside for residence and small community businesses. So far, no concrete system has been worked out here. (11).

On the Continent, the problem is solved by many cities through the holding of comparatively extensive land reserves. Buttenheim and Cornick (2) advise a similar policy for American cities. They hold, quite reasonably, that increased public ownership would make planned zoning control and other regulatory measures for land development more possible. The purposes to which such land reserves might be put include: a. undertaking of low rent housing projects; b. creation of recreational areas; c. distribution for allotment gardens for the city's interior dwellers; d. town forests; e. parking areas; and f. public buildings.

For a detailed study of this problem, see Bruce L. Melvin's Rural Population of New York. 1855 to 1925. Memoir 116. Cornell Univ., Agr. Exp. 85ta. Ithaca, N. Y. 1928.

Certain European cities hold large percentages of unincorporated land in proportion to their incorporated area. All German cities over 50,000 in population own, on the average, 23.6% of their municipal territory, excluding streets, sewage disposal areas, and other municipally owned tracts. The average distribution of this 23.6% by specified uses in 1933-34 was:

	Forests	
	Vacant property	
	Parks and gardens	
	Buildings	
6.	Miscellaneous	5.2
	-	100.0%

Scandinavian cities especially have made a policy of holding large land reserves. Since 1904, the City of Stockholm, mainly for housing purposes, has acquired 20,000 acres, which is five times the area of the original municipal district.

Percentages owned by other Swedish towns are as follows:

Fefle	80% 75
Malmo	49
Helsingburg	
Gothenburg	47

These percentages refer to the actual administrative areas of the cities. Still other continental cities with large possessions are Copenhagen, Oslo, The Hague, Zurich, and Vienna. Besides this, the number of smaller cities and towns which own lands outside their original limits, even though small in area (as a small town park or forest) is very great.

Historically, the development of this idea of municipal ownership of extra-administrative lands goes back at least as

far as the time of Queen Elizabeth, who ordained that her subjects should desist from building any structures within three miles of any gate of London. These protected strips received the name of "green girdle". This name has not stuck, but the idea has. A development based on this same concept is the "Garden City" movement which Sir Ebenezer Howard is having so much success with in the same vicinity, approximately, as the original green girdles.

In America, the idea is somewhat similar, yet distinguished by characteristic American trade marks. The movement here has been likened to a "green wedge", the idea being to drive green-bordered highways or parkways from the hinterland portions of the metropolitan area into the heart of the This type of development (which so far has been little more than a landscape architect's dream) has actually attained real form, more or less perfectly, in Westchester County. New York, where a system of beautiful motor parkways, bordered and sometimes "islanded" with natural and planted greenery. approach the Greater New York area from the North and East. and are in truth "green wedges" pointing into the heart of the city. The Rock Creek Park development in Washington, D. C. further exemplifies the idea. Going back to the Continent, we note that the City of Moscow early established a large "green belt" area around its outskirts, and that at present it is also developing the "green wedge" idea also. This city now has a chance to grow in all directions and be assured that, if proper

precautions are taken, a green, well-ordered pattern of community settlement will obtain.

This problem of developing suburban areas along orderly lines is one to which many measures will have to be applied before the solution is worked out. Zoning, particularly modified to meet this situation, will probably be of some assistance. Care should be taken not to over-zone such areas for one specific use, as, for instance, one-or two-family dwellings. It should be obvious that, when small residences are concentrated and multiplied in one comparatively small area, the usual services of streets, lighting, sewage, etc. constitute a major problem that may be all out of proportion to the ability of the small home owners to pay, especially during depression It is ever a desirable principle to distribute the tax burden of the community in proportion to the ability of each particular class of property to pay, /in relation to the services received. In other words, in planning the development of new residential areas, or other types of areas, it should be borne in mind that equalization of the tax burden among the various classes of property should be correlated with the ability of that class of property to stand for its fair share of the burden.

The complexity of the situation would seem to indicate that, before anything is done, much study should be given to possible means of controlling the future development of suburban areas. The State would be a logical agency to undertake such studies, since it has broad planning powers, including the power to pass zoning-enabling legislation. State planning, of

course, covers a tremendous field of activity. It should go forward constantly. The particular phase, or at least one of the particular phases that needs special attention right at present, however, is this suburban problem. The state planning board or commission having in its hands all the lines of control as to developmental land policies would be most able to correlate and adjust various phases of control activities so that few conflicts resulted. Individual municipalities, local units, etc. should not apply home "medicine" to their strictly local problems without the advice and approval of the state planning body.

Public Purchase Related to Zoning: One other "directional measure" may be appropriately mentioned along with the planning activity of the state, and that is public purchase. This idea of allowing the state to acquire, with public funds, large areas of land within the state for purposes of parks, recreational areas, preserves, or points of particular beauty or interest, and even of buying up submarginal lands which seem to have no other use, is a movement which has lately received added impetus. The large amount of submarginal land found in all agricultural regions presents a problem to state authorities. A good portion of it is, or is in the process of becoming, tax delinquent and subsequently of being turned over to the state itself or to the county in which it is situated. States like Michigan, Wisconsin, and many of

^{1/} Further discussed in Part II of this study under heading:
Analyzing the Population Factor. p. 66.

the northeastern states have long had the standing policy of holding certain relatively small areas, returned to state jurisdiction through tax fault, for conservation purposes such as the establishment of public parks and forests. With the advent of the depression and the reverting of many thousands of acres of land to the states, these holdings could be, and were, greatly added to. The relatively small recreation areas were in a fair way to becoming large-sized public forests, or at any rate, large-sized tracts of wild land. Still, the pattern of submarginality is not a uniform one, and it was not possible for states to block out solid contiguous areas of public holdings. It was usually interspersed with private holdings of various descriptions. It was natural for the state or other governmental unit in charge of these tracts to acquire by purchase these parcels or sections or "forties" as the case might be, which interfered with the consolidation of the area. logical enough procedure to secure administrative coordination over the area, has provided certain states with large blocks of public wild land which it is their charge to administer in the interests of the people at large. This is a relatively new function of state government and one which is in the evolutionary process right now. Definite policies in the treatment of these public holdings are not yet formulated but are being formed. Administration is not yet completely set up, but is being set up.

Such a policy of public purchase can be coordinated with zoning. If the area under public control in any one county is of such proportions to include a substantial, say a

majority percentage, of the land within that county, the need for rural zoning would not be so keen as in a county where the proportion of publicly-owned land was small. This is the result of a condition of fact rather than the working out of any law of land balance. The condition is that the land which will be acquired publicly will be, first, that which reverts through tax delinquency, and second, other lands which are the cheapest on the market. Purchase of high-priced lands by a public agency is simply outside the scope of state or federal acquisition powers. Only the cheap, inexpensive type of land is considered as the proper sort of investment by public units that are usually faced with the task of acquiring fairly large areas (in some cases, very large areas, as a 2,000,000-acre national forest) in order to achieve the purpose of their acquisition policy or to make their standard administration efforts worth while. Consequently, where all of this cheap land, which will almost necessarily include most or all of the submarginal or "poor" land in the community, is concentrated under a single ownership and withdrawn from private use and put to conservation or recreational purposes in the interests of the people at large, it follows that a sort of zoning is in progress even if it is not termed such. The planned administration of such public reserves, as a forest or park, for instance - the most common form of utilization - precludes the use of land for agricultural purposes or for any purposes, in fact, which are not strictly in conformity with the policy of the administration. In other words, the area is effectively

zoned against farming or any other land-clearing, private enterprises. The land problem is then one of administration by the servicing or supervising agency. The necessity for zoning would be small, provided, of course, that the proportion of land affected by public control was large in relation to the amount of land within the county or other legal unit in question. Where the ratio of land publicly owned to total land is relatively small, it is probable that zoning should be instituted as a supplementary measure, particularly where the amount of land likely to fall into the hands of the public in the future is small or where the rate of acquisition is likely to be slow. In such instances, zoning would probably bring about desired adjustments in land use more quickly and satisfactorily than would complete reliance on a purchase program. The cost of administration of publicly-owned areas, particularly when the owner is the state or county or town, may in itself be a deterrent to an expansion of the program. The cost of a zoning program is, however, very slight in comparison. This would be one consideration which might persuade public officials to "soft-pedal" the acquisition program where the possibility exists of putting through a zoning ordinance. This particular state of affairs would suggest the advisability of yet one other line of research; that is, a study of the means and ways in which zoning and public purchase can be best correlated one with the other. A cursory survey of the problem would seem to indicate that these two particular forms of land measures are

rather well adapted to being used in conjunction with each other. Zoning may "precipitate out" lands which are submarginal in character and which should not be used for the purpose for which they are currently worked, but it does not provide, necessarily, that these lands ever shall receive the kind of treatment that they are best suited for. If, following the zoning policy, these lands are given over, through public acquisition, to concentrated administrative treatment for conservation or kindred purposes, the use which zoning did not provide for is brought about. On the other hand, ownership and administration by, let us say, the state of a small or only a moderate proportion of the total land within the boundaries of the legal division under observation would not bring about any very profound change or improvement in the land situation itself. Economic losses through scattered land settlement over a major portion of a county cannot be balanced by detailed plans for proper land use on a small percentage of contiguous lands which happen to be state-owned and administered.

In the matter of balancing a zoning program with public purchase procedures, or with any other governmental measures, there is always the possibility of opportunism creeping in. Pork-barrel philosophy should not be allowed to influence the program of land regulation. So far, zoning has been free from that sort of thing. Probably agriculturists will never take full opportunity of available employment in forestry, although they will rely upon it partially.

Where the policy is adopted of managing the publiclyowned lands with a view to extracting revenues from the resources thereon - whether they are timber, game, or recreational sites - still another factor is brought into the picture and must play its part in shaping the community pattern in which we are interested. That is, the possibility of employing local labor in forest enterprises on public lands together with the effect that incomes so derived would have upon the adjacent settlements are considerations calling for attention before any strict use programs or administrative procedures are established. It has long been a question whether the employment that might result from the turning over of wild, abandoned, or cut-over lands to the practice of forestry would compensate for the drop in agricultural activities resulting from farm abandonment - whether it be for tax delinquency, because of zoning, or for some other reason. It is well known, however, that in many regions of the country, part-time forest work constitutes a considerable percentage of the annual incomes of farm families. Sparhawk (16) states that two-thirds of 2,200 farm operators of two mountain counties in West Virginia derived part of their annual incomes from other activities, largely woods and wood products work. What the specific requirements are have not been definitely ascertained. variable factors are many. The more income derived from farming activities, the less need for supplementary forestry activities. In southern climates, where crops are two-seasonal (or closely approach it), the time which a farmer might devote

to forestry activities is obviously going to be limited. Where the forest itself is not close at hand and some time would be consumed in daily travel to and fro, the attractiveness of the proposition in the eyes of the farmer is naturally going to diminish. The size of the most recently harvested crop, effect of weather conditions, and many other things would enter into the consideration of the additional income which farming communities might be expected to derive from forest work. forestry activities themselves would have to be rather flexible in nature to take the varied response of the surrounding labor fields into account - a very difficult proposition to work out. Probably agriculturists will never take full opportunity of available employment in forestry or wood products industry, although they are never likely to dispense with such assistance altogether. The building up of forest blocks through zoning should be planned so as to absorb a small to a medium amount of such part-time labor by farm operators, but it should not be a basis for the industrial set-up or even a major part of the forest development scheme. Its place seems to be definitely subordinate. Both farming and forest industry should be aimed to provide permanent year-round income to the group of workers which is attracted to it. True, zoning may force a few people out of farming a given area, but it certainly cannot permanently prohibit them from pursuing farming as an occupation if they so desire, and if they are willing to follow the regulations as ordained. They may go to another area and begin their activities afresh, provided, of course, that other difficulties do not stand in the way. The only point to be emphasized here is that plans for use of farm lands should look to permanent year-round residence and husbandry providing an income that is sufficient to maintain the farm family at a decent level. Plans for forest development should do the same thing - provide for permanent incomes of sufficient amount to support the forest worker and his family four seasons in the year. The piecing out of farm incomes with forest work, while it can no doubt, under certain favorable circumstances, be profitably worked into the economic system of the community, will probably never become a major source of revenue for agricultural classes as a whole. The activities of the farmer on his own land, in his own woodlot. are not included in this generalization. Here, it may be hoped, is a fertile field for improvement in which hitherto overlooked sources of income may be brought to the farm operator.

Attitude of States Toward Their Submarginal Land

Since publicly purchased lands and the administration of publicly acquired lands are, or can be, so intimately tied into the economy of the community, it is of importance that the attitude taken by the state toward its cut-over, submarginal, or abandoned lands be a constructive one. The very first requisite should be that the state recognize such a class of lands and be prepared to do something about it. Most states in which this situation has amounted to a definite land problem have done something to put in order their wild and abandoned lands which have reverted to their ownership through tax delinquency or which have been purchased outright.

In Wisconsin, where tax delinquent land reverts to the county, much of this land has been put into county forest This is not always feasible, however, because of the difficulty of consolidating scattered parcels which may happen to come in and also because some of the abandoned land is nonforest in character. However, Wisconsin is going forward in the establishment of county forests and parks. In New England, there are many "town forests", especially in New Hampshire and Massachusetts, which are not generally established in the first instance upon poor lands. Townships, or "towns", as they are called in New England, can hardly be expected to go in for any large scale, long-time investment in forest property. Where conditions are particularly suitable, however, ownership and management on a sustained yield basis of relatively small areas of wild lands would be entirely proper, not only in the Northeast, but also in many other parts of the country. New York has bonded itself to an afforestation and reforestation program which is almost entirely applied to lands which are either already within the state preserves or which are outside but submarginal in character and are planted in cooperation with private interests. New York has developed a special system of land classification, based on intensity of economic use, to meet its own particular needs. Michigan has a well-developed system of state forests and parks, which are under the supervision and administration of the State Conservation Department. There are twelve forests and 74 parks owned by the State,

They are almost entirely located embracing 1.086.445 acres. in the cut-over region where the submarginal land problem is most acute. Besides the social and recreational uses of the state forests, there is carried on a policy of harvesting such timber crops as are deemed merchantable for the purpose of securing as much revenue from these lands as is consistent In the far West. Washington and X with the circumstances. California have enacted rural zoning enabling legislation and have otherwise taken notice of their idle land problem. The Washington law, however, fails to mention specifically agriculture, forestry, or recreation, limiting itself to more general terms. In California, the problem is attacked through the medium of a master plan. Zoning, called "districting" in the legal phrasing of this State, is an integral part of this plan. It has been said that "zoning, therefore, is recognized in the California Planning Act as an important phase of the planning process. The establishment of a system of land-use control by districts is sanctioned as a means of effectuating the master plan." (8)

The cut-over areas in the Douglas fir region of Washington and Oregon present much the same spectacle as in the Lake States - that of "stump farming" or attempted cultivation of cut-over areas that are not fit for agriculture. Movements toward zoning and rural rehabilitation which are evidenced in this region give indication that these states

^{1/} The total area of the 74 state parks is only 37,403 acres. See Ninth Biennial Report, 1937-1938, of the Michigan Department of Conservation, pp. 269-290. Lansing, Mich. 1938.

are conscious of their problem and are attempting to do something about it.

Elsewhere in the Middle West, the Prairie States, the "poor land" problem is quite naturally a grazing, as well as a The soil conservation work being undertaken farming, problem. in these states under the direction of the U. S. Soil Conservation Service with permissive legislation by the state is one which is directly concerned with submarginal lands. classes are likewise considered, but poor lands must obviously Grazing districts, somewhat parallel receive first treatment. in form to the soil conservation districts, are being employed in order to solve some of the land problems found on the Plains. Even Iowa, in which there is only a very inconsiderable portion of land that is not classified as agriculturally productive, has drawn up a Conservation Plan in which treatment for its submarginal lands is outlined, reliance being placed on improvement of such lands for grazing purposes (5).

The southern states are generally without definite plans or detailed consideration of their submarginal lands. The federal government is carrying out many social programs in this region which have to do with the reconstruction of abandoned, wild lands which are submarginal from an agricultural point of view so that the poor land situation cannot be said to be ignored. The agent, instead of being the state or county, is the

^{1/} These grazing districts are created and administered by the Division of Grazing, U. S. Department of the Interior.

federal government. Rural rehabilitation, settler relocation, model communities, the vast experiment called TVA, and other measures are all concerned, some vitally, with the matter of use and reconstruction of submarginal lands - at least in so far as these lands relate to the well-being of the people of the area. In the TVA set-up, forestry activities play a large role. A community of forest workers is maintained at Norris Park and should shed some light on the matter as to how large and how permanently a community may be supported through a working of a relatively small forest area. In a recent report, it was advised that the zoning principle be applied to the lands of Hamilton County (which includes the City of Chattanooga, the largest city within the Tennessee Basin and likewise its largest wood-using center) to supplement and coordinate the other activities being carried on there which include agricultural land planning by the county and acquisition of land by the U. S. Forest Service. The zoning plan recommended five use districts rather than the three which were recognized in These five are: forest district, rural residence Wisconsin. district, recreation district, part-time farming district, and unrestricted districts, all of which applied, of course, to rural land exclusively. The titles are self-explanatory. addition of a "part-time farming" district and a "rural residence" district is aimed at a solution of the land subdivision problem mentioned earlier, and it is expected that such devices would be most applicable around the outskirts of the City of

Chattanooga. The "part-time" farming zone is aimed to direct the land-use activities of those who work within the city itself but who wish to live outside of it and supplement their incomes with whatever home-grown produce they can cultivate. The "rural residence" district is for the purpose of regulating types of structures and uses of land on those areas, principally bordering motor highways, which are primarily rural in nature but which will quite probably expand in the future. The aim is to prevent haphazard development and to prohibit unattractive or dangerous encroachments from becoming established on land that may eventually approach suburban stage. (10)

Thus we see that on the whole there is a healthy tendency on the part of most states, and on the part of the federal government, to recognize the problem that exists when large areas of submarginal or cutover lands accumulate, and that in most instances governmental units are beginning to do something about reconstructing and administering such lands. Mention has previously been made of the land reserves maintained by European municipalities. This is a measure to be considered in a similar category. The closeness with which rural zoning may be linked to a public purchase policy, particularly when concentrated on submarginal or abandoned lands is fairly discernible when one follows through these activities as carried on by different units of government. The conclusion to be reached is that, while public purchase, carried on to a great extent, would tend to obviate the necessity for zoning, nevertheless they may act

as coordinated supplementary measures in a community where the amount of publicly owned land is not apt to be excessive. Where public purchase "runs ahead", so to speak, it is likely that the local governmental structure will have to be supported in increasing amounts by state subsidy - the common forms being state collected-locally shared taxes and grants-in-aid.

Public Control For Forest Lands

The difficulty of making public policies apply to private holdings in land management cases, together with the indifference or hostility on the part of private owners to government regulation of any kind upon their property is one of the major stumbling blocks in the path of the land use adjuster - particularly when dealing with forest land. A movement to allow the federal government to take over the regulation of forest properties for purposes of regulation and management has many ardent supporters. This regulation would be on approximately the same basis as federal control of the railroads during the war period. Complete monopoly by the government. But the management of the forest lands by the government would be for revenue purposes as well as the general social objectives which now obtain for the federal forest policy. Needless to say, private opposition to such plans for federal participation in forest industrial enterprises is constant and unyielding. One compromise measure has been suggested by Hammar (7) that embodies an idea quite similar to actual legal zoning. His idea is to have the state pass enabling legislation empowering local groups to create

"forest conservation districts", similar to soil conservation Control of the lands within these districts is to districts. pass over to the federal government through the instrumentation of "control contracts" or "easements", but the actual title to the land is to remain with the individual private owner. These contracts are to provide that the owner receive a share in the revenues when they come in, and that he will waive all right to manage or control his land or the timber thereon. The creation of districts such as these is, in effect, a form of zoning just as the creation of soil conservation districts is a zoning procedure. The great disadvantage with the plan is that it has none of the democratic, popular acceptance of restrictions imposed by duly elected representatives that zoning has and, on the other hand, it does not give complete control to the federal government which would somewhat counteract its own purposes. However, it is an illustration that public control of land is tending to be extended through mediums such as zoning represents. In actual fact it would probably be more efficacious to "go the whole hog" and give the federal government clear title to the lands it contemplates putting under its management rather than retaining the shadow of the previous owner over it all to act as a "bogeyman" and to warn the administrators of the property that there was such a thing as the Fourteenth Amendment.

SUMMARY OF PART I

In the first part of this study - Land Adjustment, A Community Affair - it has been shown that the activities of mankind, physical, cultural, and political, have inevitably shaped man's environment into patterns which slowly undergo changes. The use of land for securing materials or for getting control of natural forces has been one of man's chief occupations down through the ages.

In America, we have passed the point where use has become abuse. The land has been unable to stand the continuous drain put upon it by man in his enthusiasm for producing agricultural crops and for harvesting the resources of nature. Consequently, he has been forced to slow his pace in exploiting these products and consider measures for remedying some of the errors that have been committed. The means that he is using to effectuate this reconstruction are the orderly processes of government.

Rural zoning, one of these reconstruction measures, is defined as the districting of rural land by legal procedure in which regulations, differing in different districts, prohibit injurious or unsuitable structures and uses of structures and land. To date, forestry, recreation, and agriculture have been the three uses of rural land regulated by zoning processes.

Rural zoning is proving a useful tool in land readjustment and will probably be more widely applied in the future. It is, however, only one of many measures applied to the land in the

rehabilitation process and should be used in conjunction with these others when feasible. Of and by itself, it will not take care of the abused land problem.

Taxation, an intimate factor in land rehabilitation, is closely related to rural zoning. Proper zoning will help curtail excessive township budgets and thus cut down on the amount of taxes required. This service is brought about by zoning so that settlement is concentrated in certain areas, rather than scattered indiscriminately over the whole township. When settlement is concentrated, expenses for governmental services (especially roads and schools) are reduced.

It should be remembered that identical results might be obtained by measures other than that of rural zoning - the particular circumstances of the community in question being the deciding factor in regard to this.

Intelligent suburban land division and public purchase of poor and submarginal lands are two other measures which can be closely coordinated with rural zoning. Both of these measures are now in the developmental stage. Definite, concrete, widely-accepted policies for them have not yet appeared, although there is much progress along these lines.

It is encouraging to note that most states are aware of the need for land readjustments and in many instances are doing something about their idle and submarginal lands. Rural zoning is being tried in such differing areas as Maryland, Michigan, and California. Governmental grazing regulations are being put into effect in the midwestern states, while other land rehabili-

great plains

tation measures are being carried out in the southern states, notably in the Tennessee River Valley.

A plan has been put forward in Missouri for the public control of private forest lands through the use of control contracts, in which the power to administer the lands was passed over to the federal government, while the actual title to the land remained in the hands of the private owner. This measure is, in effect, a proposed zoning of forest lands, but because of inherent defects will probably not be adopted.

PART II - STUDY OF THE ZONING PRINCIPLE

Having thus reviewed the position of rural zoning as it acts upon the community, and having held it up to be compared with other measures, similar or dissimilar in nature, which purport to carry through the same objectives, or in general to assist in the development of an optimum community pattern, we may now turn our attention to the zoning principle itself. Since its purpose has been shown to be the attainment of the greatest degree of well-being for the community at large, it will be important to us to determine what things, what forces, or what conditions which affect the well-being of a given community are closely linked or are acted upon by the zoning process.

Without doubt, zoning acts upon many, if not all, of
the factors which go to make up a community, but those which
are most closely related to zoning would appear to be the following: (1) the geo-physical land pattern, (2) population
trends bearing upon the area, (3) governmental structure of
the community, and (4) the social-psychological reaction of the
people themselves. These four factors would seem to have the
greatest influence upon the necessity for a zoning process,
and to be most likely to be acted upon themselves under the
application of a zoning idea to a community. In other words,
to apply zoning successfully, it will be necessary in the future
to keep close "tabs" on the status or condition of these four
factors and to make the zoning legislation adaptable to them to cut the suit to fit the cloth.

It is now in order to take up these individual factors and observe them, study them, weigh them with reference to their relationship to a zoned community. We must determine how these factors vary from time to time and within what limits. We should like to know under what conditions or circumstances these forces interact to the end that zoning procedures may, with benefit, be brought into the picture. We should like to know if there is any point in the equilibrium of these forces where the introduction of the zoning principle will bring about a more salutary adjustment between the forces themselves, or, in like manner, if there is any point at which zoning regulations should be dropped (if previously in force) in order to facilitate recovery from a growing maladjustment or disproportionate influence of forces. We will examine each of the factors with these points in mind.

Analyzing the Geo-Physical Land Pattern

The geo-physical land pattern is basic in its influence upon community existence. The kind of land present upon a given area will determine to a large extent what shall be the major occupation of the people thereon. The evolution of communities has been a gradual process and has resulted in giving us distinct types of habitation patterns that are well known and recognized by all of us, even though we cannot give a particular name to each one. Thus we are quite familiar with the appearance of a farming community and no doubt could identify one as such even though we were suddenly transported to a region thousands of miles away. Likewise, a mountain hamlet has

specific earmarks that are distinctive enough to enable one to designate it as such, even though the surrounding landscape was excluded from view.

The geo-physical pattern is determined by answering these two questions:

- 1. What does the land look like?
- 2. What is it used for?

For arriving at an optimum land pattern, the second question becomes:

What can it best be used for?

Land Classifications: It is at once apparent that there are no simple answers to any of these questions, although the first is the one most easily replied to. Both lines of approach indicate the necessity for some sort of land classification.

The most used procedure in this respect is that followed by Wisconsin and Michigan, in which comprehens ive soil surveys are made and soil types, or soil classes, catalogued on the basis of the soil found there. Further simplification of the system is being brought about in Michigan and elsewhere, by grouping soil types of the same grade or quality, and which show similarities in still other physiographic and economic features into a small number of "land types". (19)

In New York, an economic approach was selected and land types given a classification not on the basis of soil or other physical characteristics alone, but upon the basis of intensity of use. Few classes result from this method, but, of itself, it tells nothing about the physical character of the land within

each class, nor does it give any information upon the kind or quality of soil, nature and amount of cover (except in a general way) or upon any of the other physiographic, topographic, or geologic facts that characterize the land itself. Such observations are of considerable importance in making the best possible land adjustments within an area. Especially are physical differences, supporting divergent economic activities, of importance in the matter of zoning. Lands which give no indication of ever becoming agriculturally valuable must be zoned out of farming territory and given over to some other form of economic use. (9)

Other Land Studies: In one instance, we have seen zoning summarized as a "heterogeneity of homogeneous districts". It takes a uniformity of physical structure to compose an area that may be termed "homogeneous". Likewise, it takes some sort of boundary or division line, indefinite if need be, but nevertheless in existence, to compose a "heterogeneous" body of districts. The physical differences between areas will naturally play an important part in the determination of such boundaries. However, as stated above, this does not give us a full picture of the land situation. We must now ask ourselves what is the best use to which this particular land can be put.

In answering this question, the human factor enters in strongly. This given piece of land might be a perfect spot for J. Johnson to establish a farm, and he might provide very hand-somely for himself and his family from the produce he raises

^{1/} See page 10, line 13.

upon it. G. Jones, however, might not be able to make a go of the farming upon that land at all. It might happen to be a bit of land that was not too good in quality and required an expert at the art of tilling the soil to make it pay. Johnson is this sort of person but Jones is not. On the other hand, Jones, by nature a convivial host, might make use of the fact that the land bordered a trunk highway and put up a tavern or roadhouse and make it pay handsomely. Johnson, being brought up only to the soil, will never in the world attempt that sort of thing. Therefore, we arrive at the situation where the same spot of land may very well serve more than one purpose, the "best" use (if any use can be termed "best") depending upon the capacities and training of the individual who uses it.

Zoning, of course, stops short of a solution for a situation such as this. Zoning will, however, tend to prevent such situations from arising and will preserve the inherent homogeneity of areas by seeing to it that farms go together upon land that is proper for farming and that roadhouses and taverns go together on land which is reserved for this purpose. The hodge-podge situation which develops when individuals are left free to do their own choosing is rejected in favor of orderliness. Thus, under zoning, we do not expect to see both farms and taverns intermittently scattered all over the landscape.

Aside from a study of the individual's inherent abilities and tendencies, it is necessary to get some idea of the economic structure founded upon the land itself. This line of attack is made through income studies, resource inventories, tax studies,

crop reports, market reports, and other sources. The important point is to determine what economic value, if any, can be attached to a given land area when it is combined in a use relationship with man. This does not mean a determination of the sale value of the land. More and more it is realized that the "cash sale" or market value of certain types of land (we may mention cutover lands bearing a good crop of young growth) is no criterion of their real worth. Such lands as mentioned may have little or no value upon the current market, and yet if they could be managed or brought under some supervised form of utilization, they would produce an income of sizeable proportions. This problem is not so much one of land use as it is one of financial reforms. The economic status of the cutover lands is nonetheless a very real factor in the land pattern which obtains over such areas.

As for the whole set-up of geo-physical land patterns, one postulation seems called for. The intimate study of the structural details and closely-related ramifications of the physical arrangement should become a continuing function of some responsible agent. The State would be the logical medium for such a task. There is need for a crystallization of thought upon the concept of a whole state economy. There is need for a determination upon the part of the states as to what forms, and how much of each given form, of economic activity can be supported by the resources of the state - resources both physical and human. Foremost in this determination must come some

definite policy as to the distribution of lands of the state.

Rural zoning is such a policy and can be counted on to serve

more states in the future than have so far taken advantage of it.

As a final consideration, it might be pointed out that only through inventories such as those suggested above can the true degree of homogeneity of the land of a given area be determined, and only when this information is correlated to the further data, as brought out by the economic studies, can a proper decision be reached as to what land adjustments can be made.

Analyzing the Population Factor

The study of population movements is a science in itself. The significance of these waves of people, moving from city to country or from country to city, or even from region to region, has only lately been realized. Only recently have thorough and painstaking investigations into the social and economic motives of these migratory impulses been carried out. The National Resources Committee, the Division of Land Economics, Bureau of Agricultural Economics, U. S. Department of Agriculture, state planning commissions, and various independent investigating bodies such as the Brookings Institute and the Scripps Foundation for Research have contributed research and information upon this topic. Certain trends in population problems stand out which should be noted by the zoning advocate or land use adjuster in general.

Types of Population Movements and Kindred Problems:

First, the movement of people from rural areas into urban areas
which has been going on conspicuously since the middle of the

nineteenth century is now dwindling in strength. Second, the rate of population increase for the country as a whole is going Third, there is a different rate for urban and rural (The urban area shows a more rapid decline than does the rural. The net population change in urban areas is, in fact, a negative quantity; that of rural areas is still positive but the rural rate is falling faster than that of the cities, probably because it started higher and had further to fall.) Fourth, the reproductive index of people in the low income brackets is higher than that of people in the high income brackets but is falling faster. Lastly, it has been shown by some investigators that the fertility of all classes of women in the United States (native born, foreign born, and negroes) is declining. That is, the number of children under five years per thousand women of child-bearing age (chosen as 15 to 44 years) is declining year to year. Lastly, a change in age class predominance is taking place for the population of the country as a whole. Heretofore, the largest class of persons in the country has been that in the childhood age classes from one to 15 years. Our native population, together with much assistance from the immigration classes, was virile enough to produce large numbers of children which kept increasing as the total population increased. One result was, of course, a forced, rapid expansion of our public and private school facilities and the devoting of much of the energies of government to the education system. Now, however, with the birth rate declining for the country as a whole, the peak of population is

passing from the younger age classes to the older age classes. The crest of the wave of children has already passed through our high schools, leaving many empty desks in its wake. educational plant which was built to take care of increasingly large numbers of children of school age from year to year is now confronted with the problem of unutilized space and facili-This is as true of rural areas as in the cities. movement toward the "consolidated" or "union" schools. which has been characteristic of rural areas of late years, is now due for a halt or at least a readjustment. Many fine new school buildings with the finest up-to-date equipment have been installed by various townships in rural areas to supplant the small, one-room "little red schoolhouse" system. Formerly, schools were scattered over the township in response to demand by settlers who might or might not be situated conveniently to the existing road system. In the face of the declining rural birth rate and the passing of the peak of population numbers from the young age classes to the old, it would appear that in the future these fine modern school plants would not be utilized up to full capacity. How serious the reduction is likely to be depends upon so many other factors that it would be hazardous to venture a guess, but the trend is plainly downward (4).

Zoning Concerned with Conditions of Population: What has all this to do with zoning? The answer is that zoning is one means of regulating the migratory movement of certain classes of population, and that it should be possible to use

zoning as an implement in attaining the most satisfactory arrangement of population in the interests of community well-The creation of forestry and recreation districts, or even other districts, in which permanent settlement is prohibited, at once directs all migratory movements into the area or areas which do allow such settlement. This condition at once makes it imperative for zoning advocates to determine whether or not the amount of land being reserved for permanent settlement islarge enough (or too large) to take care of expected demands as a result of population movements. It would also indicate the importance of making all zoning policies flexible enough to provide for changes, some drastic, in the future. Thus, the zoning restrictions will act as "guide lines" to regulate the flux and flow of population. This is probably one of the major functions that zoning is designed to perform. how perfect the design is will be determined in the coming few decades when the newly-laid structure in the Lake States is subjected to the impact of the particular force we are here dealing with - that of movements of population.

Migrations - Suburban Regulations

The state of "flux and flow" of population, which has been mentioned, is the normal state of affairs. That is, up to certain limits, we may always expect a certain percentage of the total population to "be on the move". Especially will this mobility of population tend to prevail under the geographical set-up as it exists in the United States, where large cities and metropolitan areas exist in every area and region regardless

of the type or character of land use predominating in that region. A rural area or community near a city creates a "pulling force". drawing rural economic interests toward it. and a "pushing force" as people are forced out of the city to seek rural lands for whatever purpose happens to be most important to them (15). Included in these purposes might be demands for public parks, recreation areas, or homesites for suburban residence or part-time farming. The proper type of zoning could have an influence upon each of these demands. Zoning should not be construed as a tool for keeping people "rooted" in one place. Rather should it be looked upon as a framework of guardrails or safety lines which will permit of change and flow in the seat of population and the direction of their movements while at the same time preventing a collapse of the fundamental institutions which are essential to the well-being of the rural community. The abandonment of sub-marginal, tax-delinquent farms is a case in point. It has previously been discussed.

The reasons behind the "pulling" and "pushing" forces mentioned above have been the subject of study and investigation by various agencies. The general results of all studies, simplified and consolidated, show that the weighty factors causing a country-to-city movement are the following (4, 15):

- 1. The materialistic advantages, including lure of higher wages, shorter hours of work, more leisure, access to a more varied list of commodities.
- 2. The desire on the part of rural women to enjoy the conveniences of urban life. (This factor is given particular weight by Brandt in his analysis of the German "back-to-the-land" movement.) (Jour. Land & Pub. Util. Econ. 11:123)
- 3. The lure of higher education for the children of professional training for the migrants them-

selves, or of increased social and cultural advantages such as might be offered in a city but not in a rural area.

Census figures again show that almost the whole part of this migration was undertaken by youths under 25 years of age, which would seem to indicate that the first factor was the most dominant in the American picture.

The opposite movement, that from city to country, is attributed generally to the following causes:

- 1. Actual need for space; city spreads itself to outlying districts.
- 2. Cheap living during the depression, whereby city people, thrown out of work, go back to the farm to live with the old folks.
- 3. Desire for rural environment, either as a playground or as a place to live.

Study will be necessary to determine, at any given time, which of these (or any other) motives is going to prevail or, if there is a combination of motives, what is the proportion of each one. The zoning requirements in each case will be different. If it is apparent that the big demand is going to be for rural land upon which a residence can be established and part-time farming engaged in, then the zoning structure must conform to this demand and provide for it as completely as possible, while still holding all the forces which shape community existence at the optimum point. Zoning can be made, in this manner, a valuable tool of the land planner and community builder with both an offensive and defensive technique required for its application. The one major requirement before it should be used at all is that of foresight - or studying situ-

ations and trends to discover, if possible, the way things will work out in the future. In particular, with reference to the problem just mentioned - that of suburban land division for part-time farming purposes - a great deal of research is needed to determine just how important this factor is going to become in our rural economy of the proximate future . There are indications that this movement will constitute one of the major forms of rural land uses. If so, it will be something new (not brand new, to be sure, but new in such major proportions) under the American sun. It calls for a new approach to the land economics field - one which has been termed "rurban land economics (15). The State of Michigan has only recently "thrown its hat into the ring" as far as this new field of activity goes. In the closing days of the 1939 session of its legislature, an amendment to the existing zoning statute, giving townships power to regulate the land uses and density of population of those lands lying wholly outside the corporate limits of cities and villages to which the townships were adjacent, was passed The 1939 amendment gave more specific powers to the townships. aiming directly at several problems of suburban land that had arisen within the State. The new provisions extended the rural zoning principle clear up to the city or village gates, and gave additional power to restrict the use of tents and automobile trailers for dwelling purposes on the outskirts of cities, as well as to restrict the number of families per residence. Unsanitary conditions had arisen from the use of tents and trailers

I/ For report of this type of research, see J. Franklin Banner's "Patterns for City and Farm in One County". Land Policy Review. Vol. II, No. 1. U. S. Govt. Print. Off. Wash, D.C.1939.

as permanent habitations at various points in Michigan, notably around Lansing and Detroit.

Decline in Birth Rate; Progressive Aging

The decline in fertility of the American woman and the advance of the predominant age from the youthful classes to the older classes are two reactions, which, while they are not strictly "movements" of population, have nevertheless a direct bearing upon the zoning scheme. A drop in fertility means a decline in population generally throughout the country in all areas, both urban and rural. A fall in the population means a lessening of the pressure upon the land and the less pressure upon the land the less demand or necessity would there be for division into smaller units. Zoning practice under such conditions would therefore tend to enlarge "unrestricted" districts and in general to allow more individual freedom of choice in land use. This would logically follow as a result of such a population-land relationship, but with zoning already in effect. So set up as to take the coming release of land into account, the trend would be to avoid any damage that might come from an excess of individuality such as has happened in the past. hazard and ill-considered decisions to start up a farm on this "back forty". or to start a brewery near that summer settlement would be nipped in the bud as the zoning lines would already have been laid down, permitting or not permitting such activity. The individual choices would thereby be limited to those choices which were consonant with the best interests of the community.

^{1/} State of Michigan, 60th Legislature, Regular Session of 1939. Bill No. 42, House Enrolled Act No. 47. Lansing, Mich.

The real fact that our nation's population is progressively ageing is likewise of interest to the student of zoning. As has been stated, the fact that the majority of people in the country were children of school age has had a tremendous effect upon our educational plant and equipment. We built schools and school annexes, and installed modern equipment and facilities to such an extent that it now appears unlikely that future generations (barring immigration) will be able to utilize them completely. In rural districts the multiplication of school facilities was one of the factors in the high cost of township government - an evil which zoning was brought into being to correct. If, in the future, the demand for schools of primary and secondary grade is going to decline it would probably indicate to the "zoner" that his districts reserved for permanent settlement might be more extensive than where the school facilities were taxed to capacity. The same plant, in other words, could be made to serve a larger area.

Decentralized Industry

Pressure upon strictly agricultural land is apt to be even further reduced if the move to decentralize industry is carried on. The erection of small factories and industrial plants in the vicinity of rural communities will naturally provide an opportunity for rural youth, coming of age and anxious to make some money, to find employment. The attraction of becoming a wage-earner would probably act to induce many young people off the farm who might otherwise remain there. This would cut down still further the number of actual land operators.

How far this shortage of labor in agricultural pursuits can be allowed to go before it begins to have a detrimental effect upon the community, or upon the state, or upon the nation at large, is a question. It may be stated that, by all the laws of economics, this situation should take care of itself. and when the amount of agricultural production carried on by one individual gets so high that he cannot handle it alone, the price paid for farm labor will begin to rise and eventually successfully compete with the labor demands of the local factories and industries. But the point is, can we afford to let the scales of the balance swing to such extremes. Even if we can afford it. why should we tolerate it when we might apply checks in the initial stages of the disturbance? Zoning is such a check. The regulation of areas for industrial purposes within the rural community is bound to be one of the services performed by this legal instrument.

Flood Plain Zoning

ent parts of the country have brought forcefully to our attention the need for some sort of regulation of settlement along river banks and on bottom lands subject to inundation. It is a commentary on the perversity of human nature that those who are washed out of their river bottom homes usually go back again when the flood subsides. This is a needless waste of materials and human energy, and should be remedied quickly. It is possible to interpret existing zoning legislation elastically enough

so that non-residential areas could be set up on these dangerous spots. However, the logical thing to do would be to study
the situation intensively and determine what specific regulations
will most satisfactorily meet the conditions. Such regulations
could then be written into existing acts and ordinances by
amendment. Provisions of this nature should be added to both
the urban and rural types of legislation, where they exist.
Where one or the other does not exist, but where flood danger is
nevertheless a menace, the state would do well to enact enabling
legislation permitting flood plain zoning, together with any
other restrictions deemed desirable.

Constant Study Necessary: Thus we see that the widely-ramifying factor of population movements is deserving of considerable study on the part of land planners, especially those who would employ rural zoning as an adjustment tool. In summing up the situation, it will be worth while to quote the conclusions of the Land Planning Committee of the National Resources Board (12), as follows:

"In brief, the trend appears to have been toward concentration of population in metropolitan areas, but toward dispersion of population within these areas. This trend toward dispersion should be accelerated by a shorter workday and by the improvements that will undoubtedly continue in transportation facilities. It holds hope for more homelife in the future.

"During the early years of the depression, the movement to the metropolitan districts probably was reversed.... But as economic prosperity returns, an increase in the movement to the cities and a decrease in the movement from cities appears almost inevitable.

"The immediate problem is the pressure of population on the means of subsistence in these regions of hilly surface or poor soils. The soil resources in such regions are in general declining, largely because of erosion; and the land cannot support the increase of population without a decline in already low standards of living. The more remote, but no less important, problem is the prevention of a rapid decline in the national population after a few decades. Such a decline appears highly probable in the absence of heavy immigration from foreign lands, if the migration from the farms to the cities is resumed in its former magnitude, so that an increasing proportion of the people live in cities. The third migration, that from the cities proper into surrounding brritory, deserves, therefore, our careful consideration. The trend toward the establishment of homes in the suburbs of the cities and on lands more remote, associated frequently with local decentralization of industry and with more or less part-time farming, may offer a solution to both the immediate and the more remote problems of population, particularly if it is guided and aided by governmental research and administrative agencies (italics mine).

"It should be recognized that the human as well as the natural resources of the nation must be conserved. The essence of conservation is consideration of the future as well as the present. sideration of the future involves a change in the national philosophy of life and in the estimation of things worth while. It means, apparently, the substitution in large part of family ideals for individualistic ideals. The increase or even the maintenance of the population can no longer be taken for granted. rapidly-declining population will have profound economic, social, and political consequences. If the racial strength of the people is to be preserved, it is necessary to consider whether the family can survive when divorced from the land, and whether the destruction of the family will not also result in the destruction of the State."

Analyzing the Governmental Structure Factor

There is perhaps no force within the community which touches the individual more directly or more effectively than

that of the local government. The individual himself, his economic activities, such as harvesting and marketing his products, banking his money or investing it in some new farm equipment, etc., are all touched by the hand of the law, so to speak. The "touch" may mean the paying of a tax on the new tractor he buys, or it may mean (currently) that he has agreed to limit the acreage he will sow to grain crops under the second AAA. Even his social activities are supervised by the law. When he takes his family out for a drive along the highway on Sunday afternoon, he must obey all traffic rules and regulations. This restriction he takes as a matter of course, having become accustomed over the years to this form of governmental supervision. Likewise, when hauling his produce to market, he may be constrained by highway regulations to limit the load he puts on his truck.

Many other detailed examples could be given of the intensity of governmental control on individual activity and community existence. It is more subject to human control than any of the other factors, and offers a barometer by which the balance of all forces in the community can be determined. No fine or accurate picture of the situation is painted by a study of government, but in a general way the major disturbances or imbalances present will be discoverable through the satisfaction or dissatisfaction which people express in that government. Thus, if the land situation becomes knotted up in a certain area, as it is in the Lake States, the general dissatisfaction which the people will develop toward the situation, and the

demand for reform which they will institute, will express itself in the formation of new laws and legal restrictions or provisions aimed to remedy the defect. (14)

Modern Trends in Local Government: No one will deny that the structure of our government - national, state, and local - is now undergoing profound changes. In the national field, social legislation of a scope broader than any yet produced by the American philosophy of government has been initi-The insinuation of government into spheres of individual activity hitherto sacrosanct has been given vast impetus by the pressure of post-war depressions upon the framework of American society. More and more, the federal government is taking into its own hands the responsibility of protecting the American citizen from unlimited use of private privileges which has so often led to abuse in the past. Also, the supplying of the citizen with the basic services which are fundamental to a safe and enjoyable life in the community are increasingly becoming the concern of the central government. More and more. governmental provisions are set up and special agencies created to administer these basic service functions and to control the operation of those which are still left in private hands. Services such as safeguarding the public health, providing adequate transportation over the countryside, public education. matters pertaining to trade and interstate commerce, and, more recently, the development of an interest in labor, wages, and industrial activities are all examples of the increasing degree

to which the national government is concerning itself about the life of the individual.

Many of these new federal functions spill down to the Highway planning is more and more becoming the subject of surveys and studies by state bodies. Public improvements. parks, recreation areas, engineering projects of various descriptions are being undertaken with increasing readiness by the states under the influence of the general trend towards an increasing responsibility on the part of government to render basic services to the people. The fiscal policy of federal grants-in-aid which have arisen out of necessity during the period when state revenues were curtailed by the depression but the demand for services still increasing or at least holding to a high level has sustained the movement where it might otherwise have failed. Pursuing the movement down to the local communities, the townships, cities, and small villages, we find that in many instances these fundamental services would be totally lacking if it were not for the grants-in-aid or subsidy furnished by the state. This policy seems destined to take a prominent. if not a permanent, place in the structure of the lower forms of government in the immediate future.

Position of Zoning in Governmental Structure: What part does zoning play in the governmental structure? It can contribute

I/ For a good account of the need for governmental subsidy in relation to public education, see V. Webster Johnson's "Federal School Aids: A Tool for Social Adjustment?", Land Policy Review, Vol. II, No. 1. Govt. Print. Off. Wash. D.C. 1939.

much to the orderliness and simplicity of design of this structure. Elimination of roads and schools in sparsely settled districts, specific determination as to the uses of land, restrictions as to building sites and types of structures are all carried out under the one legal fact of zoning eliminating the necessity for separate forms of regulation or administration for each of the above items and for many others.

Aside from this, zoning is apt to prove even more valuable in the future in showing us some things about our local forms of government that we perhaps do not suspect today. There has been general dissatisfaction with the usual town and county governmental machinery on the ground that the officials, elective and appointive, who are charged with the administration of these units do not have powers commensurate with their functions. Or if their power is adequate then the function which they are called upon to perform is not properly within the sphere of a local official. Thus, in the usual county form of government, there are many elected officers but none with ultimate executive authority, no one person under whom the lines of administration tend to concentrate. There are offices demanding specialized functions like that of County Clerk, County Auditor, Sheriff, Treasurer, Register of Deeds and Mortgages, etc., but there is no single head over it all. Exception must be made for the forms of county-manager government which have been put into effect since 1920 (1). Durham County, North Carolina, is a notable example, and one in which the manager system has proved successful. Advance along this line is characteristically slow,

however, and by no means widespread. Manager systems under home rule have also been inaugurated in some places, particularly in California and Ohio. These trends only illustrate the unpopularity of the traditional forms. What is true of the county is also true of the township. The governmental structure has been noted to be increasingly inadequate to the performing of the modern functions and services demanded of it, and reforms have taken place along this line attended by the inertia and intrenched opposition which one would expect to accompany governmental reforms. (21)

Again, the problem of local officials performing functions not properly belonging to the local sphere of government may be illustrated by officials elected in rural, cut-over areas where the settlement is scattered and small in amount, such as the Supervisor of the Poor, the Road Commissioner, Public Health Officer, tax assessors and collectors, and others. The tendency has been for the state to take over more and more of the responsibility for supervision of the poor, insane, and criminal hospitalization and, as mentioned previously, highway development. The townships and counties have been relieved of those duties to a great measure. But in many cases, the officer is still on the local ballot and is elected to perform secondary or minor functions that might also be wisely turned over to the state. At any rate, the duplication of these offices of reduced usefulness by holding separate elections in each and every township and county of the state is a wasteful proceeding and indicates a weak point in our framework of government.

It is possible that rural zoning may change this picture somewhat. Take the matter of enforcement. The enforcement of the zoning ordinance has been given over in Wisconsin to the Sheriff. His duties, to date, seem to be perfunctory enough, usually consisting of riding around the county and noting nonconforming uses and referring cases to the office of the District Attorney. However, up to now, sufficient time has not elapsed to require any great increase of official duties to administer the zoning ordinance because non-conforming uses, as mentioned before, are not illegal if already established in the district for which they are non-conforming. It is only a new effort to set up a use which is non-conforming, or an attempt to reestablish an old non-conforming use after the allotted time period required for abandonment of use has passed, that calls for official action. Therefore, the administrative duties of the Sheriff, in regard to zoning, have been light. But it is conceivable that in the future, say when the present generation of non-conforming users has died off, that a great many problems of use and tenure might arise which would require full-time services of some official who is well informed on the situation. At such a time, it is likely that the pressure upon the Board of Adjustment will be heavy. Many persons living on the margins of zones, or others interested on continuing non-conforming uses established by their parents or relatives would have their cases adjudicated by the Board and the carrying out of these decisions might very well mean full-time attention by the Sheriff or other official.

This would be a reverse trend from that observed going on at present. Instead of the passing over of functions to state and even national hands. the responsibility would concentrate in local hands and instead of the local officer becoming less important, he would become more important. The chances are, however, that the future administrative officer of the rural zoning process will not be the Sheriff (at least, not as we now know him), but an appointed official of more technical administrative ability. If county consolidation and township consolidation ever gets under way extensively, and zoning is designed to assist this action, then the typical forms of local government as we now know them will no doubt be given over to the more "managerial" forms and the administration of zoning would become one of the logical functions of the executive staff. Zoning, adopted now and put into effect at once, may be considered as a first step in general governmental overhauling, since it will lead to the necessity for changes later on, even if it makes no appreciable dent on the local set-up at first.

Enestry in Relation to Government: Of particular interest is the part which forestry is to play in the process. Forestry zones will have less need for governmental contact than any of the others. The forest industries, sawlog and pulpwood operations in particular, are carried on in areas remote from human settlement - by the very nature of the resource which is being handled. The need for road service is usually limited to one good tapline road leading out of the area; school facilities are not greatly wanted because many logging camps still make no

provision for families, the heads of the families or the adult males being the only ones who can do the work. Children are left at home outside the logging area; public health supervision is at a minimum except that certain sanitation regulations need to be enforced in all camps. Certainly there is nothing for the Supervisor of the Poor or the relief agent to do in a zone where there is no permanent habitation anyway. Infractions of the local statutes, misdemeanors and other small crimes which might immediately show up in a settled community would tend to pass by unnoticed in a lumber camp. Recourse to legal forms of justice would be taken only in matters of importance; hence the necessity for a finely-drawn judicial or administrative branch of government would be greatly reduced.

The extreme development of this sort of condition, which might occur in those regions where it would be feasible to make forestry districts very extensive, would pave the way for an abandonment of the traditional form of township government (or of the county form) as outlined above. Where the population density drops as low as one person per square mile, as in parts of the Maine wilderness, use might be made of volunteered local talent to perform the required services in the absence of government. This absence, of course, acts as a deterrent to settlement, except for those who must rely upon the wilderness activities for their living. The general effect of this loosely-spun fabric of self-administering supervision is to give substance to a form of living that is peculiarly adapted to the physical and economic character of the area involved.

We might expect zoning to operate in like manner and eventually to point out to us what particular forms of social regulation may be developed to apply to particular districts.

Management of recreation districts will offer problems quite different from those found to exist in farming or residence districts. If the zoning policy is made a continuing one, it is not too sanguine to hope that important defects will show up in the existing structure of government for any one of these districts defects which might not have been apparent if land divisions according to use had not been established. The spotlighting of these defects or disturbances in the balance of social organization is one function for which zoning seems well adapted.

Effects of Certain Governmental Trends Upon Zoning:

From time to time we have mentioned certain policies which are becoming more and more accepted by government as proper to its sphere of activity, even though a few years ago these policies were without proponents or at least occupied a very unimportant place in the governmental scheme. Among such policies mentioned were: 1) the trying out of new forms of government, such as county- and township-manager systems; 2) the expansion of the conditional subsidy principle in a national-to-state and state-to-local direction; and 3) the increase in responsibility on the part of the state in sharing collected taxes with the local units. It has been pointed out that the progress of these trends will probably directly affect the operation of any rural zoning

procedures which happen to be existing along with them.

To the above list should be added the following item which likewise is of consequence to the land adjuster or student of zoning in that it will likely cause changes to take place in the practice of zoning if it increases in importance. This item is the trend toward reducing the number of local units of government. It has been reported (1) that between 1932 and 1935, throughout the United States, there was a reduction of 3830 local units which included 1.100 towns and townships, 2,500 school districts, and 230 special districts. This indicates a remarkable clearing out of "local governmental underbrush" when one considers the traditional immobility of established forms of government. During the same period there was a net increase of 150 incorporated places, mostly cities and villages. The number of counties remained constant, but the net result of the change was a two per cent decrease in the number of units of government. Zoning is apt to give impetus to this movement. When zoning establishes zones similar in character but extending beyond township or even county lines, it will become obvious that a broader system of administration is called for than can be offered by the existing town-county organizations. The logical result would be consolidation on the part of contiguous legal units, embracing the more extensive area under a single type of government rather than several duplicating types.

Whether state grants-in-aid or state-collected, locallyshared taxes will become more important or less important to the local unit under the zoning process is a question too difficult to answer dogmatically. On the one hand, it may work out that, as zoning brings about the governmental economies which the local units are looking for, their dependence upon state aid will decrease. On the other hand, it may be that much more financial support of the unsettled zones such as forestry and recreation districts will be required than is anticipated, and the township, with the bulk of its expendible income being used to support the concentrated services in the residence and unrestricted zones, will be unable to meet the situation. In that case, state aid would be greatly in demand. Furthermore, if much of the land in the forestry or recreational districts gravitates into state or federal ownership for park or forestry purposes, grants-in-aid will become mandatory to supplement the loss in taxable wealth to the township.

In localities where the state grant-in-aid has become an important, even a dominant, factor in the financial structure of the local government, the attraction for a rural zoning program may not be so great. In fact, the tendency may even be for such communities to foster dispersion of settlement and services. To quote C. I. Hendrickson (8), Senior Agricultural Economist of the United States Department of Agriculture, Bureau of Agricultural Economics: "A county or town may not be opposed to securing a few new settlers if thereby it may have an additional school-bus route with the cost borne largely by non-resident taxpayers. State requirements may prevent the local unit from reducing costs

and thus securing the benefits of zoning. As an instance, the procedure for eliminating unnecessary roads or schools may be so difficult as to preclude any reduction." While such conditions exist, the efficacy of any zoning program remains in doubt. It would seem to be the first step to have states in this category pass laws which will remove the obstacles and pave the way for an effective policy of rural zoning and land use adjustment.

This section has aimed to show the importance and relative position of the governmental structure of an area, particularly a rural community, with regard to the effects of existing conditions and proposed changes upon a program of rural zoning. Since zoning is itself. by reason of its being a legal act, an integral part of the structure, one may realize that it bears a very close cause and effect relationship to it. In general, it may be stated that companion measures in land use adjustment, such as the creation of soil conservation districts, reform tax measures, special legislation with regard to land use, etc., will all tend to tie in with a zoning policy and lend added weight in the move to establish community equilibrium. Those measures or movements which are more comprehensive in nature and slower to develop, such as the movement toward functional consolidation within the present framework of government or the move to try out new forms entirely will not have so immediate an effect upon zoning, although their final influence is apt to be more profound. Whether this latter type of influence will act to supplement zoning, to counteract it, or even to make its use unnecessary depends largely upon the intensity of development and the direction of the trend which such movements assume.

Analyzing the Social-Psychological Factor

The social-psychological factor is practically untreatable, from a scientific point of view, within the limits of this paper.

Nevertheless, it is brought into the picture because the picture would be very far from complete without it.

In passing, it should be pointed out that the term "social-psychological" has been used purposely to indicate that the tenor of the sentiment of the community as a whole is the important factor to the land-planner. What individuals as individuals think about a proposed or an established land program is likewise important, but it must be dealt with only when wide and general acceptance of the broad, over-all purposes of the program have received the approval of the public at large. The acceptance of the organic principle is necessary before individual adjustments can be made. In other words, the psychological reactions of the entire social group are the more immediate concern of the land planner rather than the reactions of the individual whose complaint may, after all, be due to a partial maladjustment or minor inequality that is remediable and not to dissatisfaction with the entire program.

vitalizes or negates all the other major factors which have been mentioned - governmental structure of the community, population movements within and without the area and, yes, even the geophysical land pattern, for this pattern must be seen through human eyes and may vary with the perceptive capacities and

intellectual abilities of the individual. It is a factor which is difficult, if not impossible, to measure accurately. When will the people of a community whole-heartedly fall in with the measures which are being undertaken in their behalf? When will they refuse to accept that which is directed at their own welfare? Which particular measure will they pick out of a group of measures to champion and which will they reject? If they accept, will their acceptance be unqualified or will they permit the action with reluctance and in a spirit of doubt and uncertainty? Even if their acceptance is apparently whole-hearted, how long will their enthusiasm last? Or if their opposition is adamant at present, is there a possibility that their attitude may undergo a reversal with the passage of time or upon the introduction of a new set of circumstances? There are, of course, no sure answers to any of these questions. When dealing with "pure, human cussedness", there are no rule books, or at least what little is known about the behavior and reactions of the genus Homo sapiens is insufficient to form a very dogmatic body of rules. A man may range from a state of behavior in which he may be said to be "ornery" to one in which he may be said to be "led by the nose". Just which extreme he will choose, or what level of intermediate behavior he will prefer at any given time, is something no one has ever learned to predict with much accuracy. 1± is only after the people make known their feelings upon a subject that those whose activity is affected by that attitude can determine whether their efforts were in vain or not. One

indication of the truth of this statement is to be found in the fact that about 50 per cent of the amendments to state constitutions which are placed before the people of the states are rejected. Yet the deliberation and procedure for arriving at such propositions in the first place are very deliberate, detailed, and are as sensitive to public sentiment as possible.

What have been the reactions, psychologically, to the zoning program as put into effect in Wisconsin? As has been stated before, the time elapsing since the inception of the zoning program has been too brief to allow a finally accurate "reading" to be taken. On the surface, it would seem that the principle is in a fair way to being accepted as a very useful power of the law. The ordinances put into effect in the 23 northern counties which have so far adopted them have all done so only after public hearings were held in each of the townships composing the county. No very strenuous opposition was recorded in any of the units involved. An affirmative public opinion was felt to exist in all instances before the county boards felt justified in making the proposed ordinance effective. Apparently, six years after it was given sanction by the first county (Oneida) to take full advantage of the rural zoning enabling legislation, the people are still behind the movement. (23) True, the full effect of the ordinances will not be felt until non-conforming uses are eliminated and the land-use pattern begins to conform to the ideal as established in preparing for the program. The retreat from farming on submarginal, non-productive lands, for instance, will take place very slowly. There is no compulsion

^{1/} See State Government in the United States, by Arthur N. Holcombe, Chapter XVI, p. 527-554. Macmillan Company, New York. 1931.

placed upon the established farmer of such territory to cease his activities and go elsewhere. He is free to continue farming his patch as long as he wishes, provided he does not cease to farm it for a substantial length of time. in which case the nonconforming use may not be recommenced. Therefore, the peculiar circumstances which attend rural zoning programs act to postpone definite public response. But eventually, when the results of zoning are felt more intimately, crystallization of local opinion may be expected. Everything seems to indicate that this opinion will continue to be favorable. Perhaps it will even be enthusiastic. If the benefits, social and economic, for which zoning was designed, actually materialize in the course of a few years. it is quite likely that people will take the attitude that zoning is "protective" legislation rather than "restrictive". A man's point of view is likely to be influenced more by practical results than by underlying principles.

Individual Reaction to Zoning: Turning now to the psychological reactions of the individual, as distinct from that of the entire social group, we find that there are a number of particular problems which are of concern to the student of land uses. There is the problem of the backwoods settler, probably a cultivator of submarginal farm land, who carries on his personal activities "far from the madding crowd", and who pays little if any attention to his neighbors or to the community in the vicinity. He is a lone wolf and seems to want only to be left alone to attend to his small field of corn, his 'taters, and

his melon patch. He may have a cow and a few chickens; he may get out firewood or pulpwood from the wild cut-over lands around him which he hauls to market or to a mill. and in general, may resort to various seasonal occupations such as berry picking and trapping to keep himself, and his family, which is usually not too small, from starving. This type of settler is often a "rugged individualist" who has little regard or interest in "community doings" or laws and established social customs in general, and, as mentioned earlier in this paper, he is apt to be a fire-setter. The origin of such fires may be accidental or intended. Submarginal land occupants, usually having little property or improvements to protect, can become quite careless about starting fires in a berry patch, for example, to foster a good crop of berries in the fall, or in burning over their own land, to get good pasturage, they might not be too diligent in seeing to it that the fire does not go beyond their own property. It is not by any means unknown that many fires are started purposely for a variety of motives, including spite, revenge against the owner of the property which is fired, desire to secure employment fighting the fire, and other such reasons. At any rate, it would seem fair to adduce that the application of zoning would serve to eliminate at least the accidental type of fire-setter by the simple expedient of requiring that no permanent settlers be allowed in the forestry zone. that all those engaged in the pursuit of farming would be centered in the farming zone would serve as a protection to the forest

lands and at the same time tend to provide certain families which are suspected of having the fire-setting habit with a more efficient and complete supervision than would be possible if they were left to their own resources "back in the sticks". Having neighbors has often of itself proved a forceful argument against moral transgression - even against a philosophy of indifference, which is often the result of years of partial isolation and hopeless struggle against unproductive land.

It would be of great assistance to those responsible for land use adjustment programs such as zoning if some sort of educational campaign could be initiated to assist in revising the opinion which many hold in regard to the responsibility which the state has in catering to their desires. A great many land settlers believe that as long as they pay their taxes, the state, or local governments for that matter, should assume an attitude of complete, benevolent protection toward them and should see that they are provided with everything they demand regardless of the inconvenience or inadvisability of the request. In other words, such people are prone to look upon their government as an everyday Santa Claus who cannot refuse them anything they want, simply because they have paid up their taxes. many instances, even this much can not be held to their credit, even though their importunings for assistance are nonetheless audible. F. B. Trenk (17) has reported on instances of this kind and has pointed out that rural zoning was the measure adopted to meet the situation. He tells of one family which

moved in to one of the remote lakes in the Town of Minocqua, Wisconsin, 12 miles from the nearest road and school, and demanded services from the town which would cost upward of \$2000 the first year and unknown sums for future years. Also in the Town of Spider Lake, Vilas County, a total of \$1800 in services was spent for one family alone during a single year. The investment represented by the family, on the other hand, amounted to \$800 at the most. In still another small community, the bill for snow removal for a single winter amounted to \$4000. The town would actually have been money ahead if it had paid each family \$500 in cash to stay at home while the roads were snowed shut.

Situations of this kind have little justification. Obviously the balancing point has been passed, and while individuals are strictly within their constitutional rights, it hardly seems fair or equitable that their demands should be allowed to supersede the general welfare of the community at large. It is time that ways and means of bringing the unfairness of the situation home to such people were found and put into effect. It may be that the philosophy involved in zoning, through the establishment of restricted use districts, will be sufficient influence of itself to bring about a more healthy attitude on the part of the backwoods settler toward his government. When he realizes that the moral force of the community is opposed to his demands and that actual legal steps are being taken to outlaw such demands, he may change his tune. Of course, if zoning is put into effect, he will change it of necessity, but even so, the change in ideology might well have a definite effect upon other items,

such as the reliance which the individual places upon home relief or the amount of indirect subsidy which he feels himself entitled to.

The success of zoning should do much to help overcome the feeling of hopelessness which is the portion of those who are farming submarginal land without producing income. In many instances, all the capital which the farm operator could gather from life savings or on credit has been sunk into his tract of unproductive land. When, after years of fruitless effort, he discovers that it is impossible to "make a go of it" on that land, he cannot be blamed for an attitude of despair - a despair which likely as not finds him and his whole family upon the relief rolls. Under a proper administration, a program of rural zoning should be a force in pointing out to the interested farmer that the factors attending the failure were purely, or at least largely, physical. It would likewise be of assistance in pointing out the areas or spots where this failure might be turned into a success if sufficient application is given to the task. At any rate, the resettler is prevented from proceeding to a site equally as unproductive as the first. This fact alone should give him some measure of confidence in his inherent powers - a confidence he may have lost through the years of wasted effort on the poor land.

Psychology of the Forest Worker

But the submarginal farmer does not present the only problem. Of similar interest to the student of land uses

must be the attitude of those individuals, as well as of those families, who work in, and are dependent upon, forest resources for their livelihood. Such people have also been a special breed of "individualists" somewhat on the order of the scattered settler. The forest worker's aptitudes and propensities have been the subject of a good deal more thought and investigation than have those of his nearest neighbor, the submarginal land clearer, as witness such literary interpretations as Harold Titus's Timber, Edna Ferber's Come And Get It, Stewart Holbrook's Holy Old Mackinaw, and many others. The submarginal land-clearer has not so far merited such intense scrutiny on the part of those whose business it is to scrutinize others, or who at least so make it their business. A great deal of interest along this very line is developing, however, within the field of authority delegated to such social-minded public agencies as the Farm Security Administration, the Soil Conservation Service, the Resettlement Administration, and others. They are becoming increasingly interested not only in the social condition of the people they have to deal with, but also in the underlying philosophy. More and more, they are finding that psychological factors add up to a greater total than was suspected, and there is constant effort and experimentation to discover the best procedures for dealing with this difficult aspect of the whole land use problem.

As has been intimated, the attitude of the forest worker has long been one of independence, self-reliance, and more or less isolation. He has been accustomed to working without the usual impingements of society to tie him down. He has developed

his own way of life, his own philosophy, and has been left free to make his own rules. At least, that was the situation while the great timbered wildernesses of the country held their own before the voracious onslaught of the faller's axe. The deep woods sheltered the robust lumberjack and kept him out of sight of the more civilized townsfolk down along the river banks except for seasonal invasions that have not yet died in the memory of the oldest inhabitants and which will probably never fade from the annals of local history. But when the Twentieth Century had finally been born, stretched itself, and bawled its first powerful challenges upon the ears of a self-satisfied world, the situation back there in the timber underwent a change. The supplies of virgin timber were giving out, whole regions had been denuded of their stock of standing timber, and what was more incomprehensible, the rugged woodchopper could see, having chopped the trees down from around himself, that he was surrounded on all sides by civilization. Transportation, communication, and settlement had gone forward with leaps and bounds outside the boundaries of his sheltering forests. Now that the forests had been knocked down (all but those in the Pacific Northwest), there were only two logical courses open to the woodsman. He might migrate to the Coast States. or he might remain where he was in the East or Lake States and become civilized. Some chose the former, but many believed that a new day had dawned, and so learned to acquire the polish of civilization. Woods operations were no longer carried on with the careless arrogance and magnificent flourish of the old days.

In the first place, only small timber was left and new modern methods and equipment were being employed to remove it. Less man and horse, but more horse-power were in demand. Tractors and trucks were made to take the place of horse and sleigh. The lumber camp was no longer the stronghold of masculine independence that it used to be. Wives accompanied the lumberjacks right in to the job nowadays, and very often there were furnished small workers' houses in which a family could very easily establish a residence. Home life in a lumber camp! Shades of Paul Bunyan and the Big Blue Ox! How times had changed.

The nature of the industry itself had changed a great Instead of practically all the timber being fed into the great maws of the saw mill, a vast number of minor industries had sprung up which fed upon the smaller-sized stuff that was then The pulp and paper, hard-and soft-wood distillation, available. veneer-making, woodenware and rayon industries were some of these. These enterprises called for modern utilization and productive methods; they needed a steady supply of small logs and bolts rather than a spring drive of 40-inch timber in grade A class. There was no longer any need for the red-shirted, black-bearded giant who rode down with the logs on the first spring freshet, and so the old order changed and was supplanted by the new. transversion was psychic as well as material. The forest worker became more properly a member of society, a citizen of the state in which he resided. Newspapers, radio, and automobiles made him more cognizant of what was going on around him and also

enabled him to take more of a part in "town doin's" if he so wished. He consequently put aside a great many of his primitive mannerisms and approached the problem of becoming a common, ordinary, garden variety of United States citizen with commendable resignation, if not with any great show of enthusiasm. psychological change was reflected throughout the industry as a whole by an ascendency of the idea that forest resources were important to the whole people and not to just the owners of the property upon which they grew. The concept of a "sustained yield" forest was being loudly advocated from outside sources and gaining much favor in public opinion. Publicly-owned forests were being put under management with this idea in mind, and constant pressure was being brought to bear upon the private timber owners to follow suit. The timber barons, afflicted with economic ills of vast proportions, partly of their own brewing and partly the result of world conditions, were unable to comply with the public demand for a managed, economic handling of their resources. Nevertheless, the idea of private responsibility toward public interests, present and future, was left dangling in the mind of the timber harvester to disturb his already restive slumbers and haunt him with a spectre of what would befall him at some future day. No doubt the worker, too - the lumberjack, the teamster, the "tie-hack", the "log-jumper", the "whistle-punk", and all the other woods workers somehow felt this new attitude seeping through the forest like an evening fog blown from the ocean into a spruce stand on the coast of Washington. New social obligations, closer contacts with civilization, more concern with the

operations of government, not only local, but national as well.
All these things were part of the new order.

And yet it is doubtful if this change made too profound an effect upon the psychology of the forest worker. accepted the new conditions, he was still free to live his life in the woods, and even though the tree diameters no longer reached the substantial figures of former years, it was still the "woods". The feel of independence and free and open living is extremely hard to remove, so long as there is some sort of forest cover to live under. And so long as economic rotations for forest trees are required to be as long or longer than the life of a man, we may expect to find our forests retaining substantially the same elements and characteristics that they have always had, and to act as a haven for hardy, resourceful individuals who rely upon themselves for many of the amenities that are customarily store-bought in other regions, including the ability to get along agreeably with themselves and to furnish their own social and recreational life. If the day should come when commercialism demanded a short timber crop rotation, say of 20 years, and all of our forest lands were necessary to raise the crop, then we might witness a complete metamorphosis on the part of the forest dependent. We might then expect him to forsake his traditional loyalty to the forest as a place to live and come to look upon forest land as just so much more crop land to be tilled, cultivated, and harvested. The aesthetic enrichments that do come from living in. or in close proximity to, a natural forest of mature proportions, would be lost. Perhaps other

values would take their places something akin to the satisfaction which the true farmer gets out of working his land, but even this would not make up for the regret which we would feel at the passing of such a distinctive American picture - the forest community.

And now the latest developments: land planning, schemes for land use, and rural zoning. How are these things likely to affect the forest worker? How are these latest additions to the structure of social organization going to react upon those dependent upon the forest, as a forest, for their living? First, we must realize that today there are two kinds of forest workers. The old school of traditional "wood rats" who have always worked in the timber at one thing or another, and the new school of inexperienced people who are being literally pushed into the woods by the stream of social and economic experimentation which is being shot forth from the numerous governmental agencies at present concerned with work programs and conservation activities. In this second school, we have thousands of boys and young men taken from the streets of the city or the fields of the farm and enrolled in the ranks of the Civilian Conservation Corps, subsequently to be sent out into the forest areas to do a type of work they have never experienced before, as well as to become accustomed to a kind of life that is. in many instances. diametrically opposed to that which they had been brought up to know. That the CCC boys have been able to condition themselves so thoroughly to their new environment and to accept the new mode of living so easily is one of the major observations to be noted

in the whole social program. It is a tribute both to the adaptability of the boys themselves and to the quality of supervision and training they receive. Likewise, a great number of other emergency work programs have taken their settings in silvan surroundings. The WPA has carried on many land improvement projects in the forest, such as road building, artificial lake building, swamp drainage, recreational developments, and town and community forest work, not excluding the fighting of forest fires. Other agencies, such as the Farm Security Administration, the Resettlement Administration, Tennessee Valley Authority, Soil Conservation Service, Agricultural Adjustment Administration, various state and national planning bodies, etc., are all encouraging a wider use of forest land and forest resources as a medium for improving the economic status of various classes of low wage earners, urban and rural.

The attitude of these two groups, veteran woodsman and newly-fledged forest worker, is somewhat different in regard to the development of a new industrial and social order of things in the timbered country. The veteran, as was previously stated, is unostentatiously adapting himself to the changed conditions and making use of the various social and economic reforms that have come to industry in general throughout the country. He is absorbing these things into the substance of his daily life and through it all, pursuing the even tenor of his ways - which include a steady, undramatic, practical, everyday devotion to his work in the woods. By his very constancy and philosophical acceptance of the status quo, he stamps himself as a type which

is destined to persist in the fabric of American living as long as there are woods to work in.

To the newcomer to the woods - the CCC boy or veteran, the WPA worker, the relocated settler, the forest subsistence worker in Norris Community Forest, TVA, participators in work programs on the national forests, and others whose dependence upon forests, forest land, and forest resources is a recent development - to all these a different sort of psychological attitude must be attributed. To such as these, the idea of forest work is more in the nature of an experiment than that of an established mode for making one's living. They have, for the most part, evinced a willingness to give this form of economic pursuit a fair and thorough trial, but they have not shown the satisfaction with this type of endeavor that the old time "wood rat" or "log jumper" shows. The turnover in the CCC is, after all, fairly high and progress on forest subsistence communities has not gone forward with any great speed. WPA projects carried on in the forests are usually temporary in character and so do not offer a fair basis for judgment as to what effect the environment has had upon the worker. It is quite safe to predict that many who taste this life in the primitive environment will be pleased with it and go on to spend their lives and energies under its influence. Likewise, many will find it not to their liking and will return to more urban haunts when Prosperity gets back on its feet and more jobs are to be found there. It is likely that the net effect of the whole "work in the forest" movement will be a

positive one, but not so positive as would be easy to dream about under the influence of the beneficent elixir of social planning.

Zoning Contributes to Development of American Philosophy: While the future of forest communities, arbitrarily established, remains somewhat in doubt, or is at least dependent upon economic and political factors for its development, there can be little doubt that any movement which contributes to the stability and raising of the living standards of the American home is something to be encouraged in the design of national living. Communities which are so patterned to alleviate the discomforts and disabilities of the marginal and submarginal land occupants are surely justified. Such communities should be encouraged and possibly the whole program expanded. Opportunities for enjoying a normal. if not a traditionally independent, American family life should be the ultimate aim of the governmental branches involved in this work. After all, the state can go no further. Once the possibility of enjoying a normal family existence is provided, the rest is up to the individuals themselves. No matter how well thought out and prepared the program of proffered assistance may be, it can always be distorted or treated with such indifference by the recipient that the intended benefits are nullified. the light of this cold but historical fact, it would be unwise to "force" forest communities (or any other kind) into existence. As has been the experience in the past, social benefits are brought about gradually, proceeding from a pragmatic foundation. Certain measures are tried out, and if they work, well and good;

If they fail, discontinue them and substitute something else. Placed in such a light, the rural zoning program will no doubt be found to be useful in many of its aspects and not so useful in others. While it may assist in producing desired results in regard to the proper use of land, it is probably over-rated with regard to its economical, budget-saving attributes. But if, by and large, it too contributes something to the well-being of American family life, it should be given considerable support, for this is a higher, more important accomplishment than mere economic reform.

To proceed from individual, through community, to national psychology is a large but necessary step. It leaves out one very important element - regional psychology. A discussion of national psychology would necessarily have to include, by synthesis, all the various regional attitudes and dispositions. The degree of progressivism of the Lake States farmer of Scandinavian descent is different from that of the southern share-cropper. The degree of participation in civic affairs on the part of the people of the urban regions of the Atlantic seaboard is different from that of the western rancher. The faith and reliance upon the media of civilization - trains, speed, fast communication, etc. - on the part of the Californian citrus fruit grower is different from that of the Appalachian hill-billy. And so it goes. spite of the fact that America is composed of such diverse and individual strata of social entities, the fact remains that we do have a national philosophy. Perhaps this is an indication of

exceptionally rapid maturing; perhaps it is nothing wonderful at all, but merely arises from the basic demands which are common to all men, regardless of their heritage. Probably it is a combination of the two. People of many creeds, traditions, cultures, and complexions were brought together in this New World and provided with a continent rich in resources and opportunities for all who were willing to put hand to the plow. There was so much to do, so much material to work with, and such impetus was given through scientific invention that these dissimilar people found all their energies taxed to supply the labor needed to cultivate and inhabit the land. This preoccupation with the work was itself an expression of a national philosophy. Work for work's sake. let everything else take care of itself. But now a different day has dawned. The work has been done too well. There is now not an abundance, but a scarcity of things to do. People have time to think of other things now. Perhaps it is that the dawn of class hatred, religious persecution, intense regional pride, sectionalism, and the drawing of sterner nationalistic lines is at hand. Leisure is a two-edged sword. It would be idle to expect that none but proper, salubrious influences will put in their appearance by reason of the lull in the present speed of national development. Some very improper ones are inevitable. It was ever thus. More leisure may improve the physical and ethical status of the average American by enabling him to devote more time to wholesome recreation, but it will probably give him just as much opportunity to reorganize the Ku Klux Klan.

Which will be most in evidence, benefit or "devilment"?

The answer depends largely upon those whom the people recognize It is to the prominent men of affairs that nations have ever looked for the development of national policy. these men who are responsible, in a practical sense, for whatever philosophy the nation as a whole may possess. They are the ones who take the color from the palette of public opinion and apply it skillfully to the canvas of national policy so that the world may see the design which is put there. And by leaders is meant leaders from all divisions of activity - political, social, religious, business, labor, industrial, educational, and every other kind of leader who would have the confidence of the masses. What the present day activities of these leaders are is a subject far beyond the scope of this paper; yet it might be pointed out that our political and social leaders, at least, are aware of the dilemma of leisure and are doing something constructive to meet the situation. Social planning, carried on in conjunction with political action (as is the case with zoning) puts a great deal of emphasis upon recreation, one of the beneficial ways of using leisure. Action aimed to promote more complete utilization of the land, through reducing the total amount of time available for recreation, but increasing family income so that they may better enjoy life is also a direct attempt to guide society along the path of "benefit" away from the brink of "devilment". measures which take hold will do their substantial part in the evolving of national philosophy; those which do not take hold may well be forgotten.

Rural zoning may come to have a fairly important part in

this process, but its growth will inevitably be slow. We must pick our way through the maze of national organization with proper caution and due regard for the inescapable fact that much of the territory is virgin wilderness and that consequently many of the forms and structures we apply at first will prove themselves unworthy and will have to be discarded. a young nation with much to learn. We have recently passed a milestone of national life. Our period of expansion, in a material sense, has passed the point of greatest acceleration; the velocity curve has leveled off, perhaps even started to drop. Life, fortunately, does not hinge solely upon things material. There is still plenty of room for expansion in other directions social, economic, political, and religious. In the future, it will be a matter of "judicious elbowing" rather than "unlimited expansion". Adjustment and readjustment will have to take place between things material and things spiritual; between things spiritual and things economic; between things economic and things political: between each class of activity and every other class, and finally, delicate adjustments among all measures acting together.

It is only reasonable to expect that the place occupied by rural zoning in this broad general scheme of things will be a relatively small and inconspicuous one. On the other hand, if all expected benefits materialize, there would be no justification for labeling the zoning process as unimportant. So long as it contributes something to community well-being and

individual security, it may be considered as deserving of its position in the structure of our democracy. Figuratively, let us liken the organization of our national life and ideals to a huge tapestry being woven on a loom that is the cynosure of all The fabric is not yet completed. Men are busy adding to it every day while at the same time other men are ripping out some strands which appear to meet with disfavor. Other strands are woven in their places. It is difficult to tell exactly what shape the tapestry is taking or what design it will bear, and yet it is important to note that some outline in form is shaping itself upon the loom and some interior design is beginning to be visible upon its face. One of the threads is rural zoning. Will it be one of those that is retained permanently in the intricate web of warp and woof, or will it soon be pulled out and something else woven in its stead? Time alone will bring the answer, but it is our belief that rural zoning will be found to fit usefully into the scheme of things at some point or other in the design, and so win for itself a permanent part in the formation of a national life based on democratic principles.

SUMMARY OF PART II

In Part II of this study, we have turned the spotlight, so to speak, upon the zoning principle itself. We have sought to analyze it structurally, to determine the ways in which it is most likely to operate successfully, and to observe what counter effects have occurred where zoning has actually been put into effect. We have also indicated, from time to time, which counter effects are desirable and should be striven for in applying the zoning process to a rural community.

The community forces closely related to zoning, and most likely to influence or be influenced by the operation of the zoning process, are four:

- 1. The geo-physical land pattern
- 2. The population movements
- 3. The governmental structure
- 4. The social-psychological reactions

Upon analyzing the first factor, the geo-physical land pattern, it was determined that some system of land classification was necessary for the community to which zoning is to be applied. The task of creating specific zones depends upon the preciseness with which contiguous land areas can be set off as individually distinctive.

Many different kinds of studies need to be made in determining the land characteristics of an area. Soil and cover surveys, topographic mapping, cultural improvements, and all pertinent physical information, together with economic inventories as to the present use of the land and research as to its

potential capacities, and the economic status of the land occupant are points to be considered. These activities should be a continuous function of some reliable agency, such as the state. Continuous efforts should be made to interpret correctly and apply the information obtained in the best interests of the community.

In the second analysis, that of population movements, the following trends were observed:

- 1. The rural-to-urban migrations have decreased sharply during the past decade.
- 2. The rate of population increase for the country as a whole is going down.
- 3. Population rates differ between rural and urban areas. The latter are declining, while the former are still increasing, although as a rapidly-falling rate, so that the almost certain forecast is for a stable or even reduced population within a few generations.
- 4. Reproductive indexes of both high and low income groups are falling, but at different rates.
- 5. The fertility of all classes of women in the United States is declining year to year.

These trends and movements have an effect upon community institutions. Education, transportation, land settlement and tenure, taxation, social and monetary policies of government need to be adjusted to these changing situations. The need in the future will probably be even greater.

Zoning is one means of regulating the flux and flow of population. By a constant study of the zoning process, we should as time goes on be able to shape our zoning programs

to act as a guide and check on population movements.

The third factor dealt with in Part II, namely, the governmental structure factor, was seen to be one with a constant and considerable influence upon the individual and upon the community as a whole. We found government in general to be taking a tighter grip on the everyday affairs of mankind. Social services and business regulations are becoming more and more the functions of government, whether national, state, or local.

Zoning is designed to simplify the process of rendering some of these social services and enforcing some of these business regulations. The creation of use districts such as forestry, recreation, and unrestricted zones allows economies to be effected in roads, schools, public health, and public welfare services. Certain industries, such as forest industries and the young but robust recreation industry, together with farming, are given certain checks and balances which are necessary to prevent land abuse or misuse.

New trends in government which, like zoning, aim at a solution of community problems, are: 1. the inauguration of manager forms of government; 2. the expansion of the conditional subsidy principle; 3. local sharing of state-collected taxes; and 4. the trend toward reducing the number of local units of government.

A proper procedure for coordinating all of these measures with zoning needs to be worked out.

The social-psychological factor is one which defies

analysis. Nevertheless, since the land adjuster is basically concerned with human behavior, it is necessary to observe both individual and community reaction to the rural zoning policy.

The principle of zoning has been in effect too short a time, in too few states, to enable an accurate reading of public opinion to be taken. If the material benefits expected of zoning do come about, we may be certain of public acceptance.

Of particular interest to the zoning advocate are the problems of the backwoods settler and the submarginal land farmer. Both are apt to be the "rugged individual" type and have no great feeling of dependence upon government. Their views upon the uses and methods of handling land or natural resources are fixed, and often in opposition to community welfare. A program of education is essential to a solution of this problem.

The attitude of the genuine forest worker is encouraging. He accepts progressive governmental measures, realizing that the status of the forest land situation is economically precarious.

The reaction of the CCC and WPA workers, newcomers to the woods, is uncertain. They are part of a vast social experiment which may change the working habits of large groups. Probably he is glad enough to take part in this new experiment, since it promises more than living on relief. The chances are at least that they will look upon rural zoning and kindred adjustanents as/necessary part of government.

The worth of rural zoning is to be determined by the contributions it may make to community welfare and the security and happiness of the American home. While it is primarily concerned with land adjustments, the higher motives should not be lost sight of. In this modern day of political and social experimentation, we must be willing to change our previous notions of things and be prepared to add and subtract, cut or fill, delete or insert, as the realities of the situation demand. Rural zoning, now in the process of testing, will no doubt be found to need changes, but is suited in structure and principle to take an active part in controlling community affairs.

LITERATURE CITED

- 1. Bromage, Arthur W. 1938. Town-county relationships in local government. 16 pp. Mimeographed. University of Michigan, Ann Arbor, Mich.
- 2. Buttenheim, Harold S. and Philip H. Cornick. 1938. Land reserves for American cities. Jour. Land and Pub. Util. Econ. 14:3:254.
- 3. Cameron, Jenks. 1928. Development of governmental forest control in the United States. p. 439. The Johns Hopkins Press, Baltimore, Md.
- 4. Chase, Stuart. Population going down. Atlantic Monthly. February, 1939.
- 5. Crane, Jacob L., Jr. 1933. Iowa conservation plan: its bearing upon general land planning. Jour. Land and Pub. Util. Econ. 9:3:247.
- 6. . 1933. Some aspects of rural tax delinquency in Missouri. Jour. Land and Pub. Util. Econ. 9:2:172.
- 7. Hammar, Conrad. 1939. Extending public control and management of forest land without purchase. Jour. Forestry. 37:1:3.
- 8. Hendrickson, C. I. 1935. Rural zoning. 38 pp. Mimeographed. Bur. Agr. Econ., Div. Land Econ., U. S. Dept. Agr., Washington, D. C.
- 9. LaMont, T. E. 1937. Land utilization and classification in New York and its relation to roads, electricity and reforestation. Cornell Ext. Bull. 372. N. Y. State Col. of Agr., Cornell Univ., Ithaca, N. Y.
- 10. Marshall, James H., and John E. Mason. 1939. A study of the possibilities of rural zoning as an instrument for improving land use in Hamilton County, Tennessee. Tennessee Valley Authority, Knoxville, Tenn.
- 11. Melvin, Bruce L. 1928. Rural population of New York, 1855 to 1925. Cornell Univ., Agr. Exp. Sta., Memoir 116. Ithaca, N. Y.
- 12. National Resources Board. 1936. General conditions and tendencies influencing the nation's land requirements.

 Part I of the Rpt. of the Land Planning Committee to the National Resources Board. 47 pp. Superintendent of Documents, Washington, D. C.

- 13. Rowlands, W. A. 1934. Rural county zoning in Wisconsin. Univ. of Wisconsin, College of Agriculture, Ext. Serv. Stencil Circ. 154. 13 pp. Madison, Wis.
- and F. B. Trenk. 1936. Rural zoning ordinances in Wisconsin. Univ. of Wis., Coll. of Agr., Ext. Serv. Circ. 281. 40 pp. Madison, Wis.
- 15. Salter, Leonard A. 1937. Some problems of rural land use planning in the northeastern industrial region. Jour. Land and Public Util. Econ. 13:1:31.
- 16. Sparhawk, William N. 1933. Forestry and Employment. Jour. Land and Pub. Util. Econ. 9:2:145.
- 17. Trenk, F. B. 1934. Land zoning in cut-over regions. Iowa State College, Forestry Club. The Ames Forester (1934). 22:30-33.
- 18. U. S. Department of Interior. 1938. Annual Report of the Secretary. pp. 107-121. U. S. Govt. Print. Off., Washington, D. C.
- 19. Veatch, J. O. 1933. Agricultural land classification and land types of Michigan. Michigan State College. Agr. Exp. Sta. Spec. Bull. No. 231. East Lansing, Mich.
- 20. Walker, Herman, Jr. 1936. Problems and suggestions in the drafting of rural zoning enabling legislation. Land Use Planning Publication No. 10. Resettlement Administration, U. S. Dept. of Agriculture, Washington, D. C.
- 21. Wasson, C. R., and Dwight Sanderson. 1933. Relation of community areas to town government in the State of New York. Cornell Univ., Agr. Exp. Sta. Bull. 555. Ithaca, N. Y.
- 22. Wisconsin, University of. 1929. Making the most of Marinette County land. Coll. of Agr., Ext. Serv. Spec. Circ. 23 pp. Madison, Wis.
- 23.

 . 1934. Making the best use of Wisconsin land through zoning. Coll. of Agr., Ext. Serv. Spec. Circ. 19 pp. Madison, Wis.



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