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Conservation: The Form or The Substance: Which?

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Bureau of Economics
NATIONAL LUMBER MANUFACTURERS
ASSOCIATION

Conservation
The Farm
The Suburban
Which?

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Conservation: The Form or the Substance: Which?

A little less than fifty years ago in the United States Senate it was announced that within forty years we would have no more great forests. It was a time when the effects of the ill-advised and worse-enforced general land laws were having increasing public attention. The timber situation as described by the Senator of course required prompt consideration. So for some years Senators and Congressmen endeavored to save the forests by making speeches about conservation. Then Congress created a Division of Forestry to find out what was becoming of the trees and to ascertain, if possible, how the nation might be protected from a timber shortage.

Today the Forest Service, its successor, is the administrator of 155,000,000 acres of National forests, upon which there is still standing more timber than the alarm of the Senator nearly 50 years ago had led him to think there was then in the entire United States. In addition, there are Military and Indian reservations, National Parks and State forests, small in size, and more than four times as much merchantable stumpage in private holdings as stands in the whole of the National Forests. But the gaunt spectre of the "timber famine" still stalks,—in the newspapers.

*Extent
of the
Forests
of this
Country*

It is an incontrovertible fact that we are today, and heretofore always have been, using up our for-

ests more rapidly than they are being replaced by regrowth. It goes without saying that eventually the volume of timber used will diminish or the volume added by growth will increase. But that statement, axiomatic as it is, is far from giving a formula for the device of a National plan for forest conservation and replacement. When standing timber was plentiful and cheap, and industrial development in its infancy, wood and its products were, of course, freely used. In many parts of the United States the annual per capita utilization of lumber and timbers, poles and posts, not including firewood, was equivalent to more than 2,500 board feet. Even today in frontier regions the per capita quantity of lumber used annually exceeds 1,500 feet and in some entire States exceeds 1,000 feet. But for the United States as a whole it is approximately 320 feet; as against more than 500 feet in the United States less than fifteen years ago and about 100 feet in England, 90 feet in France and 150 feet in Germany immediately prior to the outbreak of the war.

*Changing
Lumber
Require-
ments*

This nation is passing through the same evolution of changing lumber requirements that has been experienced by other countries. Despite growth in population the total annual consumption of lumber in the United States is only approximately 33,000,000,000 feet as against more than 45,000,000,000 feet in 1906. It has been declining for fifteen years.

Fifty years ago pioneer farmers in southern Ohio were having neighborhood "log rollings" at which they burned hundreds of millions of feet of fine black walnut trees for the like of which the War Department during the war literally scoured the country, in order that adequate material for propellers and gunstocks might be secured. The heavy hewn beams of old barns in the Ohio Valley are of wood that now makes kings' table tops and old granary doors are taken off to make fine furniture.

This does not necessarily mean a waste of national resources. To the early pioneer trees were an encumbrance to the soil which he desired to till. Agricultural development has usually preceded industrial expansion, which is a higher stage of economic development. Had the natural forest growth on American soil, or any considerable part of it, been either preserved or promptly replaced by new growth it is not likely that steel works, packing houses, refineries, factories and mills would now be studding those lands which once were in timber. Nations, like individuals, can not "eat their cake and have it, too."

If this means anything it means that the national need for forests and for their products is *relative*—relative, that is, to the national need for all other products that could be secured from the same land, by the expenditure of the same amount of capital and labor as would otherwise be devoted

to the growing of trees and to the manufacture of wood products. It is not good national economy to have forests for the sake of having a lot of trees. Plans for permanent forestation which in fact, whether intentionally or not, ignore the inter-relations of all economic and industrial needs are not wise. The recent and deplorable forest fires in the West have given added evidence of the need of a national forest policy, but such evidence tends to focus public attention upon the obvious fact of the diminution of the supply and to divert attention from the less obvious but not less significant fact that not so large a supply as heretofore may be needed—in the interest of greatest national wealth and welfare.

Conservation
4 *Sort of*
National
Life In-
surance

Abundance and variety of natural resources have constituted, perhaps, America's strongest single claim to industrial and commercial prosperity. Waste of natural resources is national folly. Conservation of natural resources is a sort of national life insurance, a guarantee of national life and prosperity. But conservation may not wisely protect or replace one resource at the sacrifice of a wasteful use of another resource which is more important, or of human labor, which is the most valuable of all.

"Conservation" has for a generation been a by-word in industrial circles, among civic reformers and in the lingo of politicians. It slips smoothly from the tongue. It is in turn, mouthed, gnawed

and gulped. Like the word "efficiency" it has been said by so many different people to mean so many different things that it has become either gospel or slang; gospel to those who believe that anything that is called conservation, is; slang to those who don't. Fortunately for the future of our natural resources and our language, in both of which we have pride, conservation is a matter of fact and not of name. "Conservation" which has the form but not the substance is not conservation, but waste.

It is generally understood that forests, in addition to providing raw material for the manufacture of commodities universally used, have a relation, perhaps not at all remote, to the control of water flow and hence to soil fertility: to the pleasures and recreations of the people and even, it is often asserted, to climatic conditions and public health. When one speaks of forest conservation, however, thought is usually addressed to the industrial uses of timber in the manufacture of lumber, pulp, paper and the miscellaneous products of wood-using industries. The adequate future supply of these commodities is the chief concern of the conservationist.

Today anew the people of America are being reproached for the ill-advised and worse-enforced general public land policy of years ago which alienated from the public domain nearly four-fifths of the original timber standing in the United

States. With that reproach there are being vigorously advocated throughout the land active remedial measures looking to a national policy of public and private forestation. What has been done can not be undone. The timber lands separated from the public domain can not be promptly returned. But a wise and timely forest policy may offer a partial remedy for possible future effects of what may have been an old public indiscretion and such policy deserves the approval of all those who desire the perpetuation of American industrial institutions. The greater therefore is the need that fact and principle shall, in the determination of public policy, prevail over opinion and fad.

*Present
Standing
Timber*

The forests of the United States today hold between 2,500,000,000,000 and 3,000,000,000,000 feet of merchantable standing timber, to which is being added each year nearly 20,000,000,000 feet by natural replacement. The timber now standing would, if cut into lumber, be sufficient to make a plank road four miles wide around the earth at the equator. The timber added each year by new growth would supply material for a 40-foot road reaching from the earth to the moon.

Nearly three-fifths of all the timber now standing is in the Mountain States of the far West. The forests of northern pine, in the lake region, once thought almost inexhaustible, have well nigh disappeared and the end of the timber supply in many parts of the South is in sight. In parts of

New England and of the south Atlantic States mills are cutting second and even third-growth timber, and growth of new timber is overtaking the removal by the saw. Assuming the present rates of consumption of merchantable saw timber and its replacement by new growth, there is today in the United States as a whole a reserve of standing timber adequate to secure more than 150 years' supply. This is exclusive of forest uses for other purposes than manufacture into lumber which are not dependent upon the size and quality necessary for saw logs. It is inaccurate to compute the supply of stumpage available for future use by dividing the total quantity now standing by the annual cut, for the same reason that, for a country self-supported by its own timber and practicing rigid forestry on a 100-year period of rotation, it would be inaccurate to say that it had a timber supply adequate for only fifty years ahead. Such calculation of the forest resources of this country would indicate that, if present rate of use continues, the United States will be out of saw timber in less than 75 years—which is *not* true.

Fourteen Points to Consider

In the voluminous published statements on forest conservation during the last few years there have been many points upon which all participants have agreed. But not a little of the discussion has been sentimental. Occasionally, too, opinions have

*Question
not of
Forestry
but of
National
Economy*

been made public purporting to represent the views or the temperament of a large group, or of an entire profession, which that group or profession as a whole has repudiated. Since the matter in question is one essentially not of forestry as such but of national economy, perhaps the most constructive help I can render as a lawyer and an economist toward clearing away the haze that has long enveloped this discussion is, by avoiding opinion, to state the facts as they have been demonstrated in the experience of this country and of other countries which have gone through the same cycle of agricultural, commercial and industrial development. The experience of nations and of industry and commerce is the most reliable criterion of what will best promote national wealth and welfare and industrial prosperity.

The following statements of principles must obviously be brief. I am confident, however, that I may rely upon the highmindedness of the reader to interpret them in the light of reason and in the light of facts which he knows to be matters of common knowledge. Thus may they contribute to clear thinking and straight thinking on national economic policy.

1. *There are already local shortages of standing timber and there will be more.* But there is no local shortage of lumber, except that temporary shortage which is occasionally caused by the swing of market conditions. Lumber supplies formerly

cut from neighboring forests are being secured from points more and more distant. But the removal of the original forests from the soil of the United States without provision for forest renewal on much of the land thus cleared is not necessarily a public misfortune.

The scarcity that is most impressive nowadays is not the scarcity of trees but the scarcity of trees *near to the centers of lumber consumption*. But although impressive it is not conclusive. As is recognized generally by both foresters and lumbermen, classification of lands for all the various uses to which they may be devoted *is essential to the determination of the particular use to which any given tract may be most economically devoted*. It is not beyond probability that a comprehensive survey of the needs of the forest industries, in the light of the public need for other products of the soil, may show that the welfare of the nation will best be subserved if the permanent commercial timber stands are confined substantially to the mountainous country of the far West, the Appalachian and White Mountain region, the sandy plains of the Lake region and rough country in the South and elsewhere. It is not inherently necessary, for example, that Minnesota have its own forests, any more than that North Dakota have its own, provided it has access on reasonable terms to the products of the forests standing elsewhere in the United States.

*Forest Dis-
tribution
of the
Present
Day*

It might be exceedingly wasteful to maintain permanently under forest more than a small proportion of the cut-over flat southern pine lands. Certainly the ambitious South would resent an effort to maintain permanently its status as an industrial frontier, such substantially as it has been heretofore. There is neither public virtue nor truth in the slogan that: Where a tree is cut another tree should be grown. Such a policy, pursued throughout the land, would entail great waste in the use of the nation's resources. It is the thoughtless assertion of those who believe that nature left unaided and undisturbed should be the universal regulator of the economic life of mankind, or that we should preserve or replace all our forests so that we might always have a lot of trees.

There is much land in the South which so scantily rewards the cultivation of its soil that no other use of it can be reasonably expected to be as profitable as forestation. Estimates of the proportion of cut-over southern pine lands available, according to present standards, for agricultural or stock raising, range between 50 percent and 95 percent. The facts, whatever they are, will in the long run prevail; the sooner therefore the relative capacities of southern lands are ascertained the more intelligent will be a plan of forestation based thereon, and more promising of permanence.

2. *Possession of cheap and plentiful standing*

timber is not necessarily a symptom of national wealth.

The great forests of virgin timber like all other natural resources have, it is true, in the development of this country added greatly to national wealth. But a permanent forest policy that would perpetuate the original quantity of merchantable timber, or any considerable proportion of it, might, and probably would, involve a national waste through employing soil, capital and labor for a less profitable use when a more profitable use was available. Low prices for forest products at the expense of relative scarcity and high prices for other commodities is not safe public economy. Emphasis is added to this fact by the present relative scarcity of labor, prevalent throughout much of the world.

3. *The virtual disappearance of certain species of timber is not under all conditions detrimental to the public welfare.*

For commercial purposes many species are readily interchangeable, but vary greatly in rate of growth. Practically the same things, now made from a hundred or more recognized commercial species, could be made from a dozen different species well selected for permanent growth and the same uses and comforts derived therefrom. Where there is substantial similarity in physical qualities and virtual equality in fitness for given commercial uses, those species should be perpetuated which can be grown to commercially useful size in the

*Inter-
change-
ability
of Com-
mercial
Species*

shortest time, at the lowest cost. The elimination from commerce of certain species, provided adequate substitutes are preserved, would involve therefore no necessary impairment of public wealth. Inconvenience to wood-using industries would of course result. Readjustment of industrial processes is inevitable but readjustment itself does not mean waste, or loss.

4. *The cutting down of old trees faster than new trees are growing up does not of itself signify public loss.*

The changing lumber requirements incident to the development of new standards of construction and the substitution of other materials formerly but little used, are features of the industrial evolution which this country has been experiencing. A relative lessening of the demand for lumber has characterized the same stage in the industrial development of other countries. The decline in lumber production because of increasing scarcity of its raw material, the consequent shifting of demand and the increase in prices of lumber, are facts which everyone can observe. But again such readjustment in itself does not signify public misfortune. It may be, and in the past frequently has been, the means of diverting into more profitable channels of enterprise than could be offered by forest industries, some of the productive energies of the nation.

5. *Not only is it not necessarily, but it is not even probably true, that all the lands in the United States locally determined to be better suited for growing trees than for growing anything else, should be used for growing trees.*

Disadvantage of Local or State Forest Policies

To use an extreme contrast: If 95 percent of the land of the United States were thus determined to be better suited for pasture land than for any other purpose, would 95 percent wisely be used for that purpose and we become a nation of herdsmen? Or if 60 percent of the area of this country were thus better suited for growing trees than for agriculture or stock raising, would 60 percent wisely be so used and the United States then have lumber enough to house five times the number of people it could feed? International exchange of commodities would considerably influence, but it would not be adequate to determine the character of our agriculture and our industry. The most effective distribution of the productive energies of the nation depends not upon the demand for any one product considered by itself but upon the relative public demand for all products considered together. The fact that nature covered with trees nearly two-thirds of the land surface of this country does not mean that such condition could wisely be made permanent. The forest needs of every locality can be wisely determined only in relation to the forest needs of the nation as a whole and in relation to its total timber supply.

6. *The disappearance of forest industries in certain regions because of exhaustion of nearby timber supplies has not always been either a local or national misfortune.*

Clearing of the land has frequently paved the way for industrial and agricultural expansion which has produced greater wealth than did the forest industries in their prime; witness, for example, the central States. It would be a waste of labor—as well as of capital—to attempt to continue an industrial enterprise under conditions which would have returned as the result of a day's labor a product worth only \$1,000, when the same labor—and the same amount of capital—under more favorable available conditions of employment would have returned a product worth, say \$2,000. Such, however, would have been the inevitable fortune of an effort, in many regions of the United States, to make timber properties and lumber manufacturing enterprises self-perpetuating. The gradual let-up of lumber industrial activity in certain regions or States may be, and doubtless is, an annoyance to local or State pride; but pride does not—and should not—prevail against economic advantage.

Economic Nature of Original Timber 7. *Economically the original timber in the United States is in large part a "mine" and not a "crop."*

It is a vital part of the function of a comprehensive forest policy to determine which part should be treated as a "mine" and which as a "crop."

The business of lumber manufacture is no more the business of growing trees than the business of flour milling is the business of growing wheat. Men who buy timber and operate sawmills are foresters only in the sense in which persons who buy coal lands and operate mines are geologists. The business of the lumber manufacturer is to make boards out of trees, and if he does that well he is performing the best public service that his industry can render.

It is not the business of the lumber manufacturer to make more trees out of which someone else some day may make more boards. By fortuitous circumstance he usually is an owner of cut-over land, some or all of which may have greatest ultimate usefulness in reforestation. But the mere ownership of potential forest land no more puts the owner under obligation—moral, social or legal—to undertake the growing of trees when to do so would be unprofitable, than the ownership of potential farm lands obliges the owner thereof to raise farm crops when he could do so only at a loss.

If the growing of timber is an appropriate private enterprise—which I doubt—provided it is well informed, the interest of the public in the maintenance of public timber supplies will find expres-

sion in some form which will make profitable private enterprise in growing timber. If it is *not* an appropriate private enterprise the sooner adequate provision is made for doing it as a public enterprise the better, and energy directed toward getting action out of the public would secure the more permanent reward. Under such conditions public agencies would experience no difficulty in acquiring from present owners upon reasonable terms the lands appropriate for permanent use in reforestation. Public indifference and inactivity may not, however, encumber the private owner of timber lands with the responsibility for, or expense of, doing something which the public should do, but does not.

8. *Local shrinkage of employment for labor, caused by vanishing forest industries in certain regions, has been by no means an unmixed evil for labor.*

Employment at higher wages has usually in the past been secured by removal to similar industries in other regions, or to other industries in the same region or to farming enterprises on the land cleared by the lumbering operation. Higher prices for the products of the forest in all their various forms, resulting from the increasing scarcity of raw material, have made possible the payment of higher wages. In this the experience of the lumber industry has been but the counterpart of the similar experience of other industries based on

natural resources. Occasional partial dislocation of labor is the inevitable accompaniment of the effort of modern industrial society so to apportion its productive energies as to secure the maximum net increase in national wealth.

Such readjustment of employment, far from contributing to "hobo-ism," as has occasionally been intimated, has contributed substantially to the maintenance of the relatively high standard of living of the wage-earning groups in this country.

9. *Idleness of some of the cut-over timber lands is the temporary result to be expected of clearing the forests from lands upon which maintenance of permanent forest growth would be poor public economy, because involving relatively wasteful use of the soil.*

*Use of
Cut-Over
Timber-
lands*

Agriculture, stock raising or other uses will eventually absorb these lands.

10. *Idleness of other of the cut-over timber lands is the inevitable result of clearing the forest from lands upon which regrowing of a new forest would be poor private economy.*

If the public welfare requires that lands be reforested which enlightened self interest—which is the essential driving force of all business and industry—does not induce the private owner to reforest, the public should itself engage in reforestation of lands appropriate therefor. Even today, however, it is not improbable that greater enlight-

enment of some owners of cut-over timber lands would induce them, out of plain self interest to foster on their own now idle lands reforestation by natural replacement, encouraged by protection against fire and ravage.

11. *The owner of private property in timber lands, legally acquired, is under no different or greater public obligation permanently to use his land to grow timber than the obligation of the owner of agricultural land to use his land to grow crops if the growing of such crops is unprofitable.*

The public need for food is at least no less than the need for lumber. The apportionment among their alternative uses of the productive facilities and energies of the nation, can be wisely determined only in the light of the entire national economic situation. Lands in rocky hillsides in distant New England are scratched into agricultural productivity, which are of a quality that would be barely sniffed at in the more fertile regions of the central West.

12. *The legal obligation upon the owner of property—an obligation that is universal and should be enforced—so to use it as to do no damage to another's property and to do no public injury does not include an additional obligation to make a specific positive use of it which, although intended to benefit the public at large, involves a loss to the individual himself.*

Failure of private enterprise to reforest cut-over lands is not to do a public injury. On the contrary, private reforestation enterprise today in most regions of the United States would entail public loss because it would involve a relatively wasteful use of the nation's resources. Public reforestation enterprise might, however, be much less wasteful, viewed by the standards, according to which private enterprises are judged. In final analysis national wealth and public welfare are not distinguishable from the wealth and welfare of the individuals who constitute the nation. The whole is neither more nor less than the sum of its parts.

*Private
Reforestation
Enterprise*

13. *If the public is interested in a specific positive use of timber lands or of cut-over lands different from that to which enlightened self-interest may lead the owner thereof, the public which is the beneficiary should bear the additional expense of establishing such use—not some of the additional expense but all.*

A single class of private property may not be singled out to sustain a burden in behalf of the public as a whole, which is not imposed upon other classes of private property. To do so would not only be violative of the right of private property upon the preservation and protection of which depends the maintenance of our national social and industrial institutions. It would likewise dis-

courage enterprise and would seriously impair the efficiency of the particular industry thus singled out. An intended public service might thus easily be converted into a public loss.

14. *The maintenance in idleness of cut-over land has been frequently declared to be wasteful.*

The larger truth would seem to be that it is wasteful to maintain cut-over land in such state of idleness as does not furnish reasonable safeguard against the fire and ravage which destroys the natural reproduction of desirable species upon lands appropriate for permanent forestation. Nature, in the long run, unaided by human effort, would, if given the opportunity, itself solve much of the problem of providing forests for distant future use.

The idleness itself of logged-off lands is not always wasteful. In many instances the expenditure of labor upon such land to return it to productive uses is still more wasteful because it withdraws from other fields to which it could have been more profitably devoted, the labor, already scarce enough, and other facilities thus expended. Timber and forest economics can not be dissociated from the intricate and ever changing economic relations of all industry. But it would seem safe to assume that protection against fire and ravage made universal and uniform among all timber properties, so as to involve no inequality of burden among competitors, will be adequate to guarantee,

by natural replacement, the future of the timber supply at least till such time as the permanent forest needs of the United States, and the most economical way of supplying those needs, can be made more apparent.

Such a program might properly be called one of *Forest Protection and Natural Replacement*. Surely there would be wisdom in devising adequate means for protecting what we have, before devoting our chief energies to securing more when we do not yet know how to keep what we've got. A man with a sack of potatoes with a hole in it usually tries to keep the sack full not by putting more potatoes into it but by patching the hole.

*Program
of Forest
Protection
and Nat-
ural Re-
placement*

A uniform national policy of forest protection and of acquisition by the public of cut-over lands appropriate for permanent forestation should be adequate and practicable, supplemented by such private forestation enterprise as well-informed self-interest may induce. But the duty of the public should not be confused with the public obligation of private industry. The specific public obligation of the lumber industry is to do well its task of making and selling boards. Along with all others in the nation it shares in the obligation to provide adequate forests for future generations. But this is an obligation common to all Americans and not exclusive upon a single industry or upon a single class of property. Provision for the needs

of the industry of tomorrow will not wisely impair the vitality of the industry of today, lest in the pursuit of conservation it undermine the very instrumentalities which may convert into the things of public use and comfort the resources thus conserved. Conservation at such sacrifice is the form without the substance.

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