A NATIONAL FOREST POLICY

Thesis

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Respectfully Submitted

by

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A National Forest Policy

One of the greatest economic problems confronting the American people to-day is the future of our forests. Much has been said in the past by conservationests concerning this problem but no definite program of action has ever been worked out which is satisfactory to all concerned.

Any national policy of forestry should include the protection and beneficial utilization of our present forests resources, the renewal after cutting of the timber on lands not needed for agriculture and settlement, the stabilizing of forest industries, the providing of satisfactory labor conditions in the industry, and the reforestation of essential forest lands now idle and unproductive.

Before going into the present conditions existing in the forest industry we should go back and trace the public land policy since the beginning of our government, to show how our forests were devastated, and how eighty per-cent of the present stand of merchantable timber in this country came into private hands.

The first settlement of the United States took place mostly in the eastern valleys, in which hardwood forests were in almost unbroken stands and where farming could proceed only when the forests were removed. Timber appeared to the settler as a menace in his way to establishing a home, since the land could be cleared only by destroying the forest. This lead to deliberate forest destruction by fire and the ax, and came to be accepted as both normal and necessary.

This continued in the thirteen colonies until the revolutionary, and with the assertion of independence the colonies reëstablished all their claims to the western lands according to the provisions of their

charters. These claims included almost all the land east of the Mississippi except part of Wisconsin and Michigan, and a strip of Alabama and Georgia and all of Florida. The treaty of peace signed in 1783 gave the first two strips to the United States and we later purchased Florida.

The beginning of the policy of giving homesteads was begun in 1776 by the new states when commissioned and non-commissioned officers, who had served in the war, were granted certain bounty lands, the former from 150 to 500 acres according to rank, and the latter 100 acre

This resulted in the famous "Maryland Controversy", which grew out of the fact that Maryland had no public land to give and held out for a cession of the western lands because without such lands it would be at a decided disadvantage with the other states possessing extensive western lands.

Out of this case grew our public land policy, because public sentiment was aroused to an appreciation of the value and importance to the Nation of the western lands, and of the difficulties involved in there remaining under state ownership. In view of all the various conflicting claims the states possessing western lands ceded claims to the United States in the years from 1781 to 1790 which included an area of 404,956 square miles comprising 259,171,787 acres of land.

The public domain was afterwards greatly increased by annexations by purchase, and by treaty.

The land acquired by purchase included, the Louisiana territory, Florida purchase from Fexas, Gadsden purchase and Alaska. The land acquired by treaty included the Mexican cession and the Oregon territory. Texas was acquired by annexation. This territory added to the national domain 2,783, 075 square miles of territory at a cost of \$94,435,231,15 or 1,482,849,920 acres at an average cost of \$0.145 per

acre.

The costs of surveys and administration of these lands up till 1883, raised the total cost to 23 cents per acre. The act of 1873, commonly known as the timber and stone act, provedes for the purchase of public timber land at a uniform price of \$2.50 per acre. The purpose of this law was to make it possible for settlers, miners and others actual users of timber to satisfy their needs. Records in 1904 show that 55,000 entries had been made under this act, and an area of 8,000,000 acres of carefully selected timber land had passed into private control. Much of this land was entered under this law by non-residents for speculative purposes, and the greater part of these entries passed into the hands of timber syndicates, with very little profit to the original entrymen.

So for these reasons the law reacted greatly to the disadvantage of the very class of people it was intended to help.

From 1884 to 1904 was a period during which a great deal of public land passed to private hands. The net returns from the sale of lands during this period amounted to \$92,585,403,93. On June 30, 1904 our total unappropriated, reserved, and appropriated lands in the public land States and Territories amounted to 841,872,377 acres.

In the disposition of these lands to private individuals the policy of the government was not that of gain, but rather the encouragement of settlement and the development of new communities. These purposes and the methods by which they were brought about have in the past constituted our land policy. So it is evident that our public land system or policy has been a slow outgrowth, and in many respects is a historical relic which has outlived its period of usefulness.

The administration of our public domain was established at the

outset with the policy of disposing of the land rapidly and in large lots with the idea of producing revenue for an improverished government; but has developed into a system rather of paternalism to actual settlers and of restriction of the desposal of lands in other directions, thru provisions which in the past have to often offered loopholes for dishonesty and fraud. These methods have often resulted in a restraint, upon honest enterprise.

These practises and methods in the public land department caused much dissatisfaction, but because the practise of defrauding the government by bribing public officials, or by acquiring lands by the numerous fraudlent methods was not looked upon by the average citizen as dishonest, these methods continued.

Reforms in the public land department came to be badly needed, and were gradually brought about by the inforcement of stringent laws against land grabbing and the prosecution and conviction of a number of prominent men. By these means the public conscience in regard to our public lands became aroused.

Abuses grew up under other laws, which provided for the disposition of public land.

Under the homestead law entries of timberland were common, and especially so under the commutation clause, which permitted a brief period of residence on condition of a cash payment.

The act of March 1, 1891, gave to the President the power to set aside National Forests, but failed to provide for their administration, resulting in effectually locking up timber from use. This caused very much discontent and disatisfaction in the West.

The law of June 4, 1897, enlarged the powers of the Secretary of Interior and provided for an administrative force. But consumers of wood and other forest products, who were dependent upon the forests,

were up against impractical and troublesome regulations, and the red tape and unnecessary delays worked hardship and fostered a hostile feeling toward National Forests. These Forests at first comprised inaccessible timber.

During the years 1903 and 1904 there were large withdrawals of land by the creation of new National Forests. Entries under the timber and stone act and the lien land law were checked.

Theodore Rossevelt was the man who was largely responsible for the setting aside of the lands within our present National Forests. The bulk of these lands inside the present boundaries of the National Forests were set asid during his presidency.

Roosevelt was an active conservationest and a far-sighted citizen, and to him largely is due to the bringing about of an awakened conscience in regards to the public domain.

He and others saw the result of one of our large resources, namely the timbered lands, passing into private hands.

The more accessable and choice timbered lands had already passed to private hands, and even the inaccessable timbered lands were rapidly passing from government ownership. The owners gave no that to the land value but placed a value merely on the timber. Either the holding of the stumpage for speculative purposes, or the mining of the crop with no idea for the future restocking of the land was the general practise.

In February 1905, the administration of the National Forests was transfered to the Department of Agriculture, and the policy of putting all resources to its highest use was adopted. Under the enlarged powers of the Secretary of Agriculture, regulations governing the cutting of timber have been greatly simplified, and delays in transacting business largely wiped out. Free use permits to settlers near

the forests were issued and a especial effort made to facilitate these applications and also for small purchases.

The controlling policy of the National Forests has been the serving of the public while conserving the forests. This policy has, for the most part, been well carried out by the Forest Service; but the 150,000,000 acres, which the Forest Service is efficiently administering, are largely inaccessible, and the timber they contain cannot be for many years a material factor in the market. The present National Forests can only be expected to supply an annual cut of not to exceed one-fourth of the timber we are now using. The State Forests are small and their yield of timber is insignificant.

When we stop to realize that both National and State forests comprise only twenty-five percent of our timber land and the remaining seventy five percent owned by private interests, Who are cutting the timber with no thot of the future, the pressing need of a National Forest Policy is brought home to us.

It is necessary for the safety and the prosperity of the United States, either in peace or war, that we have a good and continuous supply of forest products.

The idea that there is no immediate danger of timber shortage is erroneous, because the beginning of such a shortage is here already, and can only grow worse. The price of lumber and forest products has risen steadily until it is almost prohibitive, and it is a fact we cannot dodge, that we are consuming almost three times as much wood as we are producing.

No industry can go on using up its raw material faster than it is being produced without exhausting the supply.

The forests of New England have been cut out and the amount of second growth meets but a fraction of the regions needs, and the bulk

Of its lumber supplies are now imported from distant parts of the United States at enormous cost for freight, in spite of the fact that in this region there are large areas of idle land suitable only for forest production.

Next look at the Lake States, whichonly thirty years ago were the greatest lumber producers in the worlds history, and to-day are able only to supply a small part of the timber they use. The extensive white pine forests of this region are about exhausted and white pine stumpage which once had little value brings readily \$20 per thousand. It will only be a matter of about twenty years or less before their commercial hardwoods go the same way as the white pine. Enormous quantities of timber are annualy imported from the South and West, not with standing the fact that in the three Lake States there is as much idle land as the entire area of Michigan.

The southern pine region, which became the center of the lumber industry after the decline of the Lake State Region, has for the past twenty years been the center of lumber production and the worlds largest producer of high qualitytimber; but is now rapidly passing the same way as the Northeast and Lake States. It is a known fact that within IO years three thousand pine sawmills in the South will be scraped and the annual cut of the region will fall off at least fifty per cent. At this time there are seventy-five million acres of cut over land in the southern pine region.

Our last great stand, in fact the world's greatest stand, of high-grade timber is in the Pacific Coast Region. It will only be a matter of about ten years or less till this region will be supplying the bulk of the nation's timber.

In this Pacific Coast country much of the great timbered area is suitable only for forests.

The length and cost of the freight haul, as the more accesable forests are devastated, and the distance between the remaning forests and the centers of consumption constantly increases. Thus logging of the less and less accessable timber becomes steadily more expensive.

Prices being charged today arevery high and the quality of lumber on the market is lower than formerly. The tendency is to use grades and kinds of lumber, which twenty years ago were considered hardly worth manufacturing, but today furnish the bulk of our stocks in trade.

The reason for these high prices and poor quality is shortage of timber. The demand is greater than the sup ly and altho the present stand will not be exhausted for 50 years the shortage will be felt more and more each year. This shortage is not like a food crop shortage which can be made up with one or two good years, but requires not less than 50 years time to grow and harvest a timber crop.

So only by taking the most immediate and effective action can the gap between the exhaustion of the old forest and the growth of new supplies be bridged. There are three ways to bridge this gap: (1) reducing our consumption of timber per capita, (2) by importing timber from abroad, (3) by growing new forests at home.

It is not practical to decrease our wood consumption to prevent a timber shortage, because our population increases faster than the shrinking in per capita consumption, thus causing the total consumption of timber to increase. When poor quality and exhorbitant prices prohibit the free use of forest products there will be wide spread suffering among the people of this country.

It is impossible to depend upon imports of lumber from abroad, because these nations have had to import lumber themselves for years back. The shortage is world wide among civilized nations and we would be forced into the closest kind of competition with them for what-ever

remains of the world's virgin forests. There is besides the high cost of forest products the ever present hazards of ocean traffic with which to contend.

If the gap can-not be bridged by reducing consumption of timber or by imports then how can it be accomplished? The only remaining course open and the most feasible one is to start at once growing new forests at home. We have millions of acres of potential forest land lying idle and non- productive which can be put to work growing the timber which is of vital necessity to this country. That the United States should become dependent upon a foreign supply of timber is on its face preposterous. We can- not go on forever using our forests faster than they grow, the annual growth of wood upon a tree is added to the previous years growth just as interest is added to principal, but there is on way to increase this annual growth.

Present Shortage.

This shortage of timber has been foreseen for along time, and our National Forests were created, in part to meet it. They are located for the most part in the roughest and most in accessable parts of the mountains of the West, and the quality of their timber is below that we are now cutting; also the cost of logging is so great that very little National Forest timber is available. These forests are very valuable and will eventially furnish a rapidly increasing part of our timber supply, but can never be expected to yield but a part of the timber we require.

State Forests.

Our State Forests include less than one per cent of our forest lands, and many of them include much land which has been logged and burned over. The present stand of these forests is practically unimportant and for many years their yield of merchantable timber

will at best be nominal.

It will be many years before State Forests eventually become important in the national timber situation, and can play but little part in meeting the shortage which confronts us.

Private Forests.

Privately owned forests, with a view to permanent production, are a negligible fraction of one percent of our forests.

Farm woodlots, in the central states, carry a large part of our hardwood timber. They are growing, for the most part, only a percent of the timber they might be made to produce.

It is plain that the national timber supply cannot be made secure thru the, now existing, National Forests, State Forest, farm woodlots, or private forest estates, and these together can furnish only a small part of the timber required. Only the wise handling of our commercial timberlands, by saving or restoring their productive power, will maintain our timber.

Forest Devastation.

The present timber situation is due to forest devastation.

Forest have not been held in high regard and deliberate destruction has been practiced in large areas of forest lands. Forests are bought and sold for the merchantable timber they contain, with small regard f for the value of the land which produced them. The original investment, in both land and timber, is charged against the timber removed in logging, and whatever may become of the land after logging is of little or no interest to the owner, except where it offers chances for profitable speculation. Lumbering, as it exists in the United States today is nothing less than mere timber mining. Slashings and brush are left, for the most part, after logging, and when they be-

come dry and inflammable and fire regularly follows.

Forest devastation has been so long continued and is so widespread in this country that in the eastern half of the United States one hundered million acres have been changed into idle wastes.

This forest devastation is what has created the present the present shortage in forest products, is responsible for our enormous deficite in growing timber, has thrown great regions almost into bank-ruptcy, and has generated labor troubles of dangerous proportions. Devastation is wrong and not needed and must be stopped. The mature timber can be harvested without causing the land to be placed in a condition of enforced idleness for many years.

Destroying the forests to make way for the farms may once have been necessary, and ruining the forest by lumbering may have seemed expedient, but neither is now necessary or expedient. Forest devastation has long been an unmitigated evil, and today threatens our national safety and undermines our industreal welfare. Lumbering must continue but forest devastation must stop.

Forestry Facts.

The basic facts concerning the timber situation have been established. The thing to do now is to go ahead and work out a policy to meet the situation. We know that to maintain forests in continuous production is now practicable.

The present total forest area of the United States in roung numbers is 500 million acreas, including cut-over, devastated and idle forest lands. Of this about 16 percent is located in the mountainous portions of the Eastern and Northeastern States; 27 percent is in the Southern States, 23 percent in the Central States; 19 percent in the Rocky Mountain region; and 15 percent in the Pacific Coast States.

Out of the 500 millions acres 100 million acres and more are so devastated as to be almost wholly unproductive. Over 250 million acres have been cut over and more or less damaged by fire, but are producing new timber in small amounts.

One hundred and fifty million acres are in standing timber where growth merely balances decay. Four hundred million out of the 500 million acres, in round numbers are in private ownership and 100 million are publicly owned. Ninety seven percent of our annual cut comes from privately owned land, and it is these lands which are our chief dependence for the present and future, which are being devastated.

The bulk of the private owned timber land is in the hands of a few men whose policy is to cut little of their timber and reserve to themselves the large profits which will come with the growth of the country and the diminishing timber supply.

Our present annual consumption of timber is 100 billion feet while our present annual growth is only 35 billion feet.

In presenting a forest policy there are a number of fundamental principles upon which it should be based, and legislation passed to put the program in action. This should be so started at once.

Land classification.

The first step in establishing a same forest policy is the classification of all the timbered and cut over lands in the United States.

All potential agricultural land should be listed by special land examiners or land classification parties, reserving such adminstrative sites at strategic points for stationing men, who must handle the timber, grazing, and other business. All other land that is not agricultural should be listed as forest land and placed in the forest program for the nation.

When this work is done and snaps and other data made of the potential forest lands in private hands, adequate legislation should be passed by Congress establishing our Nation Forest Policy.

Program of Forestry for the Nation

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As was mentioned at the beginning of this paper, any national forest policy should seek the protection and beneficial utilization of our forest resources, the renewal after cutting of forests from non-agricultural or needed for settlement, the stability of forest industries, and of satisfactory conditions for forest workers, also the restoration of forest growth on lands now idle and non-productive.

The national timber supply must be made secure by forbidding devestation of private forest lands, and by bringing about conditions necessary for the keeping of these forest lands permanently productive, also by the production of forest crops on public forests owned and operated by communities, States and the Nation.

Control over the lumber industry must be national to prevent devastation and insure continuous production of forest crops on lands which would otherwise be idle.

Any plan proposed should seek the support and advice of the most progressive thought of the lumber industry. It should be remembered that the lumber industry is not responsible for existing conditions, but the blame lies on our unwise land laws and on the nation as a whole.

Personell of Commission.

A Commission of five to consist of the Secretary of Agriculture, Chief Forester, Secretary of Labor, Chairman of the Federal Trade Commission, and a representative of the lumber industry, should be created, with the duty of making any rules, regulations and decisions for the administration of the law as may be necessary. The Secretary

of Agriculture should be Chairman of the Commission and the execution of the law to rest with the Forest Service under direction of the Commission.

A commission of three men as proposed by the Committee for the Application of Forestry of the Society of American Foresters is believed to be to small and fails to provide direct representation of the lumber industry or of the Forest Service. The commission of five members is an ideal one because the interest of the government in forestry is safeguarded and the lumber industry will feel that it has some say as to the methods to be used.

The Secretary of Agriculture must be a man who is vitally interested in forestry because of the close relation of forestry to agriculture; in regard to the conservation of stream flow, the prevention of landslides, the flooding of fertile lands, checking wind velocity, rainfall, climate and a number of other factors which could be mentioned.

He must be broadminded enough to be fully aware of these factors in regard to agriculture, and also the need for forest products by the agricultural communities of the country. For these reasons he is placed on the Commission as Chairman.

The Chief Forester is the man who must see that the rules, regulations and decisions of the Commissions are executed, the Forest Service.

Although he is under the Secretary of Agriculture it is only fair to him that he be a member of the Commission, whose rules and regulations he must put in force. The Chief Forester is a man who has devoted his life to an ideal, viz; the perpetuation and best use of our forest lands and would always be a valuable man on the Commission.

The Secretary of Labor has a place on the Commission, in view of the large number of men employed in the lumber industry, and the fact that anything which is done by the Commission to stablize the industry must have its effect on labor. Among the functions of the Commission would be to donsider wage rates, overtime, hours, housing, board, insurance, and other matters, with a view to stablizing labor conditions in the industry. Taking into consideration the factor of labor is one of vital importance in working out a National Forestry Policy and therefore the Secretary of Labor should be all means be included on this commission.

The fourth member of the Commission should be the Chairman of the Federal Trade Commission because his commission has been created for the express purpose of gathering and compiling information concerning, and investigating from time to time the organization, business, conduct, practices, and management of any corporation engaged in commerce, except banks and common carriers subject to the acts of Interstate Commerce Commission, and its relation to other corporations, individuals, associations and partnerships.

The Federal Trade Commission may require any corporation, coming within its jurisdiction to file with it, in such form as may be proscribed, reports or written answers to specific questions and to furnish such information as it may require. Such information to be written and made under oath.

This commission may also make investigation as to how any decree of a United States Court against any defendent is being carried out.

The personell of this commission consists of five men, and the Chairmanship of the senior member of the commission to fill the office for the ensueing year.

On account of the wide scope this commission covers in regards to the regulation of industry in this country the Chairman of the Federal Trade Commission is a logical member for the Commission on forestry for the Nation.

Lastly the lumber industry itself, which must ultimately conform to the rules and regulations layed down by the Commission should have a representative to voice its views and sentiments. The lumber industry should not be held responsible for existing conditions, but the blame lies on the nation as a whole for its unwise land laws from which the industry as well as the public has suffered. The lumbermen should be consulted in regard to any radical changes that there may be less chance for unintended injustice and also because their experience will be valuable in making private forestry practicable.

We have provided for the full representation of the government and labor in our plan, so why should not the Capital represented in the industry also be represented. I believe that it should, and that with this Commission of five more satisfactory work could be accomplished with less delay than with a smaller commission representing only the government.

Regional Administrative System.

The Commission should be authorized to establish regional administrative organizations to coincide with the principle forest regions of the United States.

Each regional organization will be in charge of a regional forester, to whom the commission, acting thru the Chief Forester, delegates such authority as may be necessary for the prompt execution of the law in accordance with local conditions and needs. He would be responsible for the execution of the rules and laws laid down for his region, and should explain the requirements of the laws and regulations and secure compliance or if still they are consistantly violated to report such non-compliance to the Commission.

When ever necessary, such representatives of the Federal Trade Commission and the Department of Labor should be assigned to the several forest regions, as may be necessary to co-operate in the administration of the law.

In each forest region the forester should fix standards and make rules and regulations to prevent forest devastation, and provide for the perpetuation of forest growth on privately owned timber lands operated for commercial purposes. These standards should relate to general methods and principles only, the greatest elasticity being allowed in their application to varying local forests conditions as is possible. The main object of all this standardization should be to put an end to forest devastation, and the placing of the lumber industry on a uniform basis throughout the country as a whole.

The local regulations hould provide for forest protection and perpetuation in the manner best fitted to local forest requirements.

Standardized Accounting Systems.

The Commission, acting with the advice of the Trade Commission, should prepare a standard accounting system for the whole industry, and require it to be used. They should call for periodical reports covering covering such items as production, orders, shipments, sales distribution, stocks on hand, cost of production, and returns; and a special account of the increased cost, if any, of regulated over unregulated logging, or showing any direct or indirect gains under regulation. The Federal Trade Commission should assign such field agents as are necessary to the different regions in order to aid in installing the new accounting system and also to obtain accurate results.

The result of all these reports coming to the Commission from all parts of the country, and their subsquent compilation into a printed report to be issued to the public at periodical intervals, would tend

toward greater stability in the lumber industry. This is a thing the industry is in great need of and should aid in every way possible to bring about, for while there is no accurate data upon which to rely there will always be constant fluctuations in prices, and consequent increased risks and higher interest rates. A stablized industry is a safe industry in which a man can plan or contract for the future without assuming large financial risk on account of a sudden drop in the market when time fro him to fulfill his obligations.

Keeping an accurate account of any increased cost of operation under regulated logging will show to what extent the operator is injured, and the measure in which the Government should compensate him for his loss of income.

Withdrawal of Supervision.

This data would also allow the Commission to withdraw its supervision and make only such occasional inspections as may be necessary, whenever an organized forest unit proves capable of taking direct charge of the work of forest protection and perpetuation in its forests and gives assurance that the standards which have been attained will be continued. The Government to resume its supervision at any time the public welfare so demanded.

Control over Production.

The Commission would have the power to control production during times of economic stress, whenever necessary for the public good. This would have the effect of preventing over production and a consequent slump in the market resulting therefrom when the period of stress was over.

Co-operative Combinations.

The Commission should have the power to sanction co-operative

combinations of lumber manufacturers fro all purposes which will result in economies in production and marketing whenever, in their judgment such combinations will promote the general public's interest. It is clear that there can be such a thing as a combination which is not in restraint of trade, that it effects reductions in costs of operation with a consequent reduction in cost to the consumer.

Co-operation with the Several States.

The Commission should co-operate, thru its regional forester, with the several states in all matters furthering the practice of forestry within the States. The Government should aid in securing State legislation which will make sustained yield on privately owned timber lands possible. The Government should offer financial assistance to those states which desire it, and are willing to appropriate a like amount of money in order to carry on forestry work on both State and Private lands within the state. This practice of the Government putting up a like amount that the State does for forestry purposes is well established under the Weeks Law. This law provides that the Government assist in watershed protection of any navigable stream, and much work is being and has been done under this act in the Appalachians, along reforestation lines. This law has been interprested to mean that any watershed which provides water, even remotely or indirectly, to a navigable stream comes under the act, and the Supreme Court of the United States has upheld this interpretation.

In the west this aid from the Government, in which the state puts up half the total amount, is applied to fire protection on the watersheds, while in other parts of the country, especially the Northeast, large areas of watersheds are being planted to forests.

As we have this principal of a fifty-fifty system, between the

Government and States, firmly established under the Weeks Law it should not be at all difficult to extend it to cover all essential forest lands, whether on watersheds or not.

There should be co-operation with the States for protection of the forests against fire and other enemies, and a definite standard of efficiency required. The Government might withhold its assistance to a State if this efficiency was allowed to drop below the standard or if proper protection laws were not enacted and enforced. But the inducement should be so strong that the State can not afford to be without Government assistance.

The Government should promote the acquisition of private lands by the State and communities for forestry purposes, and if possible assist them in doing so.

Under present economic conditions it is not practical for the lumbermen to practice forestry on their lands. Taking the country as a whole, private ownership has failed to place the management of our forests on a sound and permanent basis. Any stable forest policy which is to become general among private owners will involve a radical change in the character of much of the capital mow invested in timberlands. Speculative capital will not be attracted by the timber growing business under forestry principles, but timber stocks and bonds, if properly secured by land and timber under management, may be a safe and profitable investment for savings banks, insurance companies and others who are looking for security trather than high returns. To do this the speculative element in timber holding must be eliminated. This will not be possible for some time.

Public Participation and Ownership.

Increased public participation in the management of timberlands is

to be desired, and will be a powerful factor inbringing about the practice of forestry and in doing away with the evils of private ownership when uncontrolled.

The United States should acquire the title or control of forest lands, both timbered and cut over, in any one of the following ways:--

- (1) By purchase of the entire fee or surface rights.
- (2) By a system of long-time leases.
- (3) By designating general areas within which title to all forest lands should pass to the Government by condemnation upon the completion of logging operations.
 - (4) By gift.
- (5) By defraying additional expenses of regulated logging as a means of acquiring title or control.
- (6) By the issuance of certificates receivable in payment for National Forest timber, ripe and approved for cutting, to be cut under National Forest rules and regulations.

The purchase of the land outright from the private owner, after he has removed the timber by destructive logging, and reforesting it by planting or seeding would prove a very expensive proposition because of the high initial cost and compound interest charges. If the Government could control the cutting and pay for the seed trees left standing and also the additional costs of regulated over unregulated logging and them buy the land after removal of the timber, a new crop could be produced much cheaper and quicker. Planting wide areas of cutover devastated land is a task of enormous magnitude and amounts to an almost prohibitive expense. Forestry of bare land is at best an expensive undertaking and if forestry is not to be practiced until the land has been denuded, we shall have but little of it for many years. Planting

will be necessary in some cases but will not solve a very great part of the whole problem.

By a system of long time leases the Government could secure control of private owned forest land and put it under management, charging the owner the actual cost of growing the timber crop and bringing it to maturity, when the yield is received.

The designating of general areas within which title to all forest land should pass to the Government by appraisal and condemnation upon completion of logging operations. The logging operations should be controlled so that the land will notbe devastated.

In the three cases mentioned so far there should be compensation given to the private owner either from appropriated funds or from the proceeds of the sale of long term serial bonds.

In many cases the private individual cares very little for the land after it is cut-over and rather than practice forestry or even pay taxes may be willing to make a gift of this land to the government. In this way could the government add to its holdings.

The Government could obtain control over lands privately owned by defraying the additional expenses of regulated logging. This would only be fair to the timber owner, because if he is put to an increased expense by the practice of forestry he should not be made to bear it; but the public which is directly benefited should bear the burden.

This would operate to keep much land in private hands and provide taxes for the communities in which the land is a part.

One of the most workable methods for the Government to require cut-over lands I believe is that of the Government giving stumpage in return for these lands. This is a sound economic proposition by which both the Government and the owner of cut-over land benefit. The Government possesses stumpage which the lumber man can utilize. The lumberman

has areas of cut-over land, good for nothing but forestry, which he does not care to put into forest production. He is concerned with the business of manufacture and is in the market for stumpage. In most cases he is ready and willing to exchange his cut-over lands for an equal value of stumpage.

The Government could issue certificates to be given for the purchase of the entire fee or surface title of private owned land, the values to be established by Government appraisal. These certificates would be received by the Government in payment for National Forest timber which is mature and approved for cutting, to be cut under National Forest rules and regulations.

The Government would get control of considerable land which it could incorporate in its general forest scheme, and at the same time not have to make a direct outlay of money. The mature timber on the National Forests would be disposed of under a system of regulated management, and the countrys lumber supply would be kept up.

The public forests at present comprise 25% of the total forest area of the country and Ex-Chief Forester, Graves, has made the statement that our publicly owned forests should be extended to include from 40 to 50 per cent. I believe the exchange of Government stumpage for private cutover land would in a large measure result in bringing the control of large areas under governmental supervision.

Compensation of Counties.

Were the Government to acquire these private lands they would not be taxable by the state and county in which they lie. Large areas of Government land in a county tends to place an increased burden of taxes upon the remaining land, held by private interests.

The National Forests at the present time pay a certain percentage of all their receipts to the counties in which they are located. This is worked out on an area basis, the total area being divided into the net

receipts for the forest and this result multiplied by the area of the National Forest lying in each county.

In the same way should the Commission compensate the counties for the sum they lose in taxes caused by this transfer of title to the Nation. If this were done it would remove one very large obsticle standing in the way for the establishing of a National Forest Policy.

Taxation.

One of the largest draw backs to forest practice by private owners in this country is the taxing of forest property in the same manner as other property is taxed. The States have failed to distinguish between forest property and other forms of property. There is a lack of uniformity in the present methods of taxation, which often tend to premature and wasteful cutting and to the discouragement of forestry practice.

A unifrom system of state forest taxation aimed at the best use of the land should be included in any program of forestry which might be adopted. The Government should encourage action by the States and help them to investigate the current methods of taxation and their effect in causing premature and wasteful cutting and the difficulties of holding cut-over lands for tree growth. When this data is secured the Government could aid in drafting a model tax laws applicable to various forest conditions.

It is well known that the relationship between the taxation and the proper development and conservation of forests is a very significant one, but in spite of this majority of States continue to tax forest property under the general property tax. This should not be. It is a well established economic law that taxes should be collected at the time or in the manner, in which it is most likely to be convenient for the contributor to pay. As far as possible taxes on timber should be collected when the timber is cut.

Compound interest in forest taxation is a big item at the end of a rotation where annual tax payments are made. By computations one can show the results of various methods of taxiation of timber and the percentage each is of the net yield.

One method which could be worked out for taxing timber that would be fair to the owner and still derive some revenue for the country and state will be described in full. This method would have to be made to suit different localities and sets of conditions.

First, the rotation, rate of interest, and final return per thousand would have to be decided upon. Second, some nominal land value must be arbitrarily chosen which will be taxed annually under the general property tax.

The Se (Expectation or capital value of forest soil) should be reduced by the amount of the tax rate. The following formula is of value in computing the reduced Se value which should be placed on the property.

$$Se - \frac{X \times x \quad O3}{.0p} = X$$

The accompaning tabulation is for a \$5 nominal land value which is taxed annually. The land tax at the end of the rotation is computed and also the percentage this deferred tax of the final yield. Nothing under \$5 is considered. The tax rate chosen is .30 mills and the different interest rates from 4 to 6% compared.

If this method could be adapted by all the states a big step forward would be made in private forest planting and timber land owning. It would be on a stable basis where the owner would be assured that he would not be taxed on the growing crop until receipt of income, and the county or state would be assured an income which might not otherwise be possible.

A change in our system of taxation is fundimental in any program of forestry for the nation and must of necessity become a part of our economic system sooner or later.

Forest Inaurance.

The Commission could authorize the establishment of adequate forest insurance agencies. Forest Protection can be brought to such a high state of perfection that risk would be almost eliminated, and if forest insurance were in effect it would tend to bring about more and better protection against fire.

In establishing a forest fire insurance agency for any locality the average annual fire loss in that region would have to be known. The liability or value of the standing timber would have to be taken into consideration, as would also the hazard or degree of probability of fire occurring. Where the liability is great and also the hazard is high the rate charged would have to be greater than on a tract, or in a locality where liability is small and the hazard slight.

All these factors would have to be taken into consideration in working out a safe forest insurance, where the rate charged per acre would cover average losses due to fire and running expenses of the agency. Any savings resulting from a lessened fire damage any one year should be placed in a sinking fund to provide against excessive losses above the average in another year.

Forest insurance would be a very important factor in stabilizing the industry.

National Forest Loan Banks.

There is at the present time a well established system of Federal Farm Banks in this country which loan money to farmers at low rates of interest. Before these banks were established the farmers were at the

mercy of the loan sharks and often became virtually slaves to them and in the end lost there farms. The Federal Farm Bank has changed all this and now the farmer can get a long time loan at a low rate of interest.

The same principle could be applied to forest lands, by authorizing the creation of a National Forest Loan Board and a system of Forest Loan Banks. The lumber industry would be enabled to borrow money on long time loans on more equitable terms than at present. The result of this Legislation would be the encouragement of forest land owning and planting because with low interest rates over long terms the carrying charges would be decreased to a figure such that private operators could afford togo into the timber growing business.

Labor.

The question of the human element in the lumber industry is one which must be taken into account and upon which everything else depends. The labor question involves the efficient and harmonious cooporation between the capital and labor.

This question is too large to go into fully in this paper, and is merely mentioned here as one of the factors involved in working out a National Forest Policy.

Some have suggested granting official recognition to regional and national councils of lumber employers and employees, chosen by the operators and the workamn. They propose that among the functions of these councils would be to consider and adjust such matters as wages, overtime, hours, leaves, housing, board, insurance, and other questions between imployers and employees.

The stabilizing of labor in the industry is something devoutly to be wished for, but whether such means will bring this about I am not prepared to say; but it is my firm conviction that only by cooperation by both forces will anything lasting and beneficial be accomplished.

Penalties.

The laws enacted should provide appropriate penalities, for their enforcement. Watersheds of any navigable stream should be protected by preventing the cutting or removal of timber contrary to the law or regulations and providing severe penalties.

Conclusion.

In this paper I have tried to show the need for an adequate forest policy for the nation and some of the vital factors entering into the whole question. The need for such a forest policy cannot be denied and the sooner some start is made along these lines the better.

The policy adopted should be well rounded out and not prove entirely for National control or entirely for state control, but rather a combination of each. Neither should all the forest land revert to the nation or the state because such a situation is not sound economically.

There should be a balance between National State and private forests and cooperation by all.

The question is national and should not be left to those states possessed of essential forest lands; but the public should assume certain responsibilities and burdens in assisting private private owners in carrying out their part of the undertaking.

The fundimental measures that should be cooperated in by all are:
fire protection, assistance in reforestation, taxation, forest loans,
survey of forest resources, land classification, research work, and
forest insurance. There must of necessity be a variation of the program
to meet varying local conditions and cannot possibly be put into effect
all at once but will have to be worked out step by step. Some states
have already gone further than others and the other states will have to
be brought up to there standard so that within a short while they will

all be working along the same lines.

Since the day in December 1918 when Ex-Chief Forester Henry S.

Graves forced the issue there has been more constructive thought along the lines of a National Forest Policy than ever before and something be bound to be done and soon. The country is being educated to understand the situation that now confronts us and before very long this great question will be met and settled once and for all.

Biblography.

Graves, Henry S. A Policy of Forestry for the Nation.

U.S.D.A. Circular 148. December 1919

Forest Devastation. Report of the Committe for the application of Forestry of the Society of Amercian Foresters. December 29, 1919. Defebaugh J.F. History of the Lumber industry 1906. Vol. 1. pp 342-374.

Lumber World Review

June 10, 1919; July 5, 1919; July 19, 1919; August 16, 1919; August 23, 1919; August 30, 1919.

Lumber July 7, 1919; August 18, 1919.

Science Magazine Jan. 22, 1915 pp. 126-127

Timberman. August 1910 ;;. 39-40.

Pacific Logging ongress Proceedings 1910 pg 20-21

Ames Forester. 1915 pp. 33-36.

Timberman. Taxation, September 1909, pg 50.

Chapman Herman H. Forest Valuation. 1914