

"Forestry" in Public Schools of the Philippines *

By

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In submitting this paper, my purpose is to present a scheme of forestry in public schools which has been found to be successful in Australia, New Zealand, and the United States. This scheme is not only an arbor day once a year but an arbor day throughout the year; in short, it is forestry all-year-round. My boldness in treating this hinges on the assumption that the public school teachers who may soon shoulder the brunt of implementing this scheme have hospitable and fertile minds to accommodate (or may I say include) it at least in their school curriculum. Besides, some teachers particularly Mr. Aldemita of the Lopez Elementary School to whom I have broached the idea encouraged me to elaborate on the subject.

In a rapidly-developing agricultural country like the Philippines, it is particularly important to promote an intelligent "forest mindedness", because our record in regard to our forests is similar to that of most pioneering nations in that we are repeating their misfortunes which we ought to have avoided after noticing their honest mistakes. As a result of these pioneering activities, immense quantities of valuable timber have been destroyed to make room for the farmer and settlers, and have been sent up as smoke to an offended heaven and converted into ashes on a hard-baked wailing earth. A recent report shows that over a million pesos worth of standing timber was destroyed wantonly by squatters in Cotabato. This destruction still goes on with the perennial and incessant nibbling by "illegal kaiñgins" and timber stealing on the nation's forest. Right in Mt.

Makiling alone, which is supposed to be the princess of national parks, "illegal kaiñgins" have converted what was once a verdant forest into an almost bald and receding one. But these forest destruction and evil practices may be minimized considerably, and eventually stopped through a concerted effort of developing "forestry mindedness" among our people. Along this effort, the public schools can play the major role. It is, therefore, on this premise of producing an educated public opinion favorable to forestry that I present this scheme.

If we trace the history of arbor day in this country, celebrations alone particularly last year, have netted the country with 4,582,055 trees planted, although these trees were extolled for one day only each year. For conservative estimate, since the inception of arbor day in this country (say thirty years ago), and with an average annual planting of only a million trees, then, there ought to have been planted by now about thirty million trees which are enough to cover an area of 3,000 hectares (about the size of Mt. Makiling) with a spacing of one meter by one meter. But where do we find these trees now? Only a few remains can be found in public plazas, parks, and public school grounds, which have miraculously withstood the odds of neglect, drought, and vandalism. In pointing out this unfortunate experience, I am not against arbor day nor am I advocating for its abolition but I am more for its continued, practical and prolonged observance by the whole nation. The public schools, I believe, are best qualified

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and the proper institutions which through all the year round may carry it out along in their class instruction. To my mind, arbor day should not be concerned only with the planting of trees but should include their care and protection which cover at least 95 per cent of the total activities in the growing of a tree.

Forestry by public schools, or let us call it "public forestry" is not far from the practice of gardening, which is never as hard as nor harder than its care, instruction and implementation. It differs only in the time element involved; that while gardening is concerned with agricultural and short-time crops it treats of trees that are long-time crops. Any small waste neglected or eye-sores of a school yard may be made into a forestry plot for the purpose.

As a part of the school curriculum, if this is possible, a weekly lesson plan for instruction as the case may be, may be prepared and carried out as a forestry project to conform more or less with the following points outlined:

I. Why plant a tree?

1. Posts, poles, firewood and timbers for farm and home use may be grown in a short time.
2. Christmas tree plantations may yield quick returns.
3. Saplings or small tree plantations for landscaping and park plantings may yield handsome returns.
4. Important timber and reforestation species in plantation may yield early financial returns from their seeds.
5. Careful management of forest trees will result in the production of much merchantable material.
6. Irregular areas not used for agricultural purposes may be planted.
7. Open or cogon lands may be made more productive by planting trees.
8. Many communities and cities are planting trees on idle land such as the reservoir area of the city.
9. Planting will restore forest cover to lands which are not suited to agricultural use.
10. Windbreak trees protect farm lands.

11. Soil erosion may be checked and eroded areas made to produce timber products by planting trees like ipil-ipil and other species.
12. Trees will prevent wind erosion, or serious problem on sandy soils like kakauate trees in Luna, La Union.
13. Trees furnish shade and invigorate the climate.
14. Trees help improve the soil. Where agricultural crops fail to grow, trees may succeed and eventually restore the fertility of the soil.
15. From the cradle to the grave, trees serve mankind.

II. What is a tree?

1. Parts
2. Functions
3. It has life.
4. It has symbiotic relation to man.

III. How to grow a tree.

1. Seed collection.
2. Planting.
 - a. By direct seeding or sowing.
 - b. By nursery (gardening) method.
3. Methods of plantnig.

IV. When to plant?

V. What to plant?

VI. Preparation of planting site

VII. How to plant forest trees.

VIII. Care and protection of trees

1. Fencing.
 2. Protection from man (Why is the kainginero the enemy No.1 of the forest?).
 3. Protection from insects and fungi.
 4. Protection from animals and other agencies.
 5. Proper and timely pruning and thinning. It has been observed that trees along the roads to Manila from Laguna are pruned of their branches during the hot season when their shade is most needed.
- IX. Measurements and valuation of timber.
- X. Dissemination of the "Tree's Prayer."
"Ye who would pass by and raise your hand against me, hearken ere you harm me. I am the heat of your hearth on cold winter nights, the friendly shade screening you from the summer sun, and my fruits are refreshing droughts quenching your

thirst as you journey on. I am the beam that holds your house, the board of your table, the bed on which you lie, and the timber which builds your boat. I am the handle of your hoe, the door of your home, the wood of your cradle, and the shell of your coffin. I am the bread of kindness and the flower of beauty. Ye who pass by, listen to my prayer—'Harm me not; I am a tree!'"

In this connection, teachers who may be charged with the duty of implementing this scheme, may be given in-service training during summer or vacation time as the case may be by competent forest officers within the province or by those assigned by the Director of Forestry. I believe that the Director will be more than glad to help in this training venture.

For practical purposes, the school premises, roadsides, parks, plazas, vacant lots, seashores, waste lands, private farms, etc., may be planted to trees for the project. A case in point of successful plantations already established are the mahogany trees in front of the College of Forestry, U.P. and Division of Forest Investigation, Makiling National Park, which were planted in 1928 and are now merchantable trees worth several thousand pesos. Also, the 1/10-hectare molave plantation in the Makiling National Park which was planted in 1913 is worthwhile looking into especially for the Manila Railroad Company which I presume may be willing to have its vacant lands along the railroad tracks planted to molave trees. Likewise, the agoho trees of the Lopez Elementary School which were planted during the arbor day in 1947 have been furnishing seeds to the College of Agriculture and the Bureau of Forestry aside from the timber and beauty they have added to the landscape. Recently, too, Congressman Gonzales secured several dozens of mahogany trees for planting in a barrio schoolyard of Bay, Laguna. For this growing enthusiasm, there may be more propitious time by appropriate representation to proper authorities that pu-

blic schools located near forest reserves necessitating planting and reforestation as those in Ilocos, Pangasinan, Cebu and others may be able to obtain by lease or special permit a reasonable portion of these lands for the forest project. By then, at this stage, we should have reached the point where other nations have already succeeded.

Public school forestry was born in Victoria, Australia in 1923. Later, the idea spread to the adjoining States, that in 1928 in Marburg, Queensland the first of its kind was established. Up to 1949 there were maintained in cooperation with the Queensland Department of Public Instruction and Sub-Department of Forestry 228 school plots most of which are now giving monetary returns to that State. In Wisconsin, U.S.A., the scheme was adopted and in addition boy scouts were trained as junior forest rangers.

With the examples and success of other countries aboved-mentioned, we have no alibi to offer for being cold and indifferent to this forestry proposition. We have nothing to lose but everything to gain by adopting the scheme. Therefore, our prospective school forestry plantations, although how humble in size they may be, will be a challenge to the municipalities throughout the country to use their waste lands and make them more beautiful and more profitable, and to private land owners to realize that they, too, may have an important part to play in providing timber for their own use and profit. To the *kaiñgineros* and the PTA, here is a concrete example that their children in public schools have not only painstakingly done to plant, protect, and conserve the forest but also respected it as a public trust or property by proper and diligent citizenship training acquired by them in public schools. By then, will they and others throughout the land realize that *so long as there are growing children in the public schools there must be growing timber for them and the generation to come*; otherwise, God bless them during the time of timber failure.