

# Reforestation With Government Fund

By

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## INTRODUCTION

Too often people cannot appreciate the value of a thing until they have lost it. History has fully demonstrated this in the case of forests. As man progressed and settled down to cultivate the soil, he began to consider the forest as a barrier and obstacle. The forest must give way to agriculture. This was demonstrated in the oldest seats of civilization in northern Africa, southern Europe, near East and the Orient. However, we need not go far for examples. Right here we have the cases of the denuded regions, the so-called oldest Spanish settlements, the Ilocos and Cebu. The people cut their forest without thinking of the future. They have never known, because nobody taught them, that in order to insure the permanence of agriculture in the lowland the upper slopes of the mountains must be kept forested. Nobody taught them the forest insures the continuous flow of water from springs. Nobody taught them that forest minimize soil erosion, tempers extreme climatic conditions and serves as windbreak. They did not know that forest and forest products can be cut and gathered and can be made to serve indefinitely the needs of the people if it could be allowed to regenerate itself. The people did not know that trees are crops that can be harvested and grow again. Nobody has shown to them the truth that trees are replaceable unlike ores and metals once mined are gone forever.

These, the people in those denuded regions never learned inspite of their claim that theirs is the "first seat of civilization"!

Within their lifetime they have seen the effect of their own folly the result of their greed and selfishness—the destruction of their forest. Many of those old folks are the same people now complaining that the climate has become unbearably hotter, the water table has sunk deeper, the rivers that used to have clear flowing water now becomes muddy during rainy days, overflow its bank and deposit sand and gravels over the agricultural lands below causing incalculable damage to property and public work. During the dry season, the rivers are dry.

The land can no longer produce enough to feed the local population and the people are impoverished, they migrate to other places where there are still forests because there the soil is rich—there perhaps to repeat what they or their ancestors have done—destroy the forest.

Indeed, people are hard to convince, and education is a slow process. The government had to do something to solve the problem. Annually, the rivers of the denuded regions unleash their fury spreading havoc, devastation, suffering, death and misery.

## REFORESTATION WORK BEFORE WORLD WAR II

These rivers must be tamed and their fury controlled. Dams and levees are too expensive. Reforestation seems the only practical solution. Thus, in 1910 the Bureau of Forestry started to study the possibility of reclaiming cogon lands by planting trees in the vicinity of the School of Forestry at Los Baños, Laguna. The result of trial plant-

ing had been very encouraging and hundreds of species have been tried and found successful.

Members of the legislature must have been so impressed with the possibility of planting barren lands that in 1916 passed Act 2649 appropriating P10,000.00 for reforesting the denuded and barren hills of the Government-owned Talisay-Minglanilla Friar Lands Estate in Cebu. Thus was established the Cebu Reforestation Project first such attempt in a big scale. This has proved a success inspite of difficulties due to the hostile attitude of the squatters. This project proved to the skeptics that trees can be coaxed to grow in cogon and barren lands. The work was however, discontinued upon exhaustion of the fund.

To obtain funds for reforestation was very difficult and it was only in 1919 that funds became available in the General Appropriation Act for this purpose. The amount was not much but it permitted the opening up of three more projects besides the maintenance of Cebu and Los Baños projects. Experimental plantings were carried on up to Ilocos provinces and Baguio. This limited appropriation continued in the annual budget up to 1926 and more convincing data were gathered proving that barren wastelands can be made to grow trees if the right species and proper methods are used.

So in 1927 Act 3238 was passed appropriating P50,000.00 to continue the reforestation activities of the Bureau of Forestry. This made possible the opening up of four new projects including the Cinchona Plantation in Bukidnon. This could not last long with nine projects to maintain so that in 1932 the maintenance of these projects had to be provided in the regular appropriation for the bureau again. This was barely enough and this condition had to drag on to 1936. Available record shows that P310,000.00 was the total amount granted during the five-year period.

Greater impetus was given the cause of reforestation in 1937 when the legislature

passed Commonwealth Act No. 245 appropriating P258,198.00 for reforestation purposes. This has greatly increased the activities of the existing projects. Planting surveys were conducted to determine areas that need immediate establishment of reforestation projects. As a result of these surveys, twelve new projects were established.

1938 Com. Acts Nos. 300 and 304 provided a total of P1,256,370.00 to continue the reforestation work already started. Five more new projects were established and a new Division of Reclamation and Reforestation was organized in the Bureau of Forestry. This work has become a major activity of the government. The people have awakened to the need of keeping the mountain slopes forested and they could see in the reforestation projects that forest can be made to grow again on barren lands.

In 1941 a total amount of P1,689,710.00 had been appropriated for reforestation. The reforestation program of the Government with such readiness of Congress to cooperate could not but succeed.

Before the outbreak of World War II the status of Reforestation work by the government was as follows:

Number of reforestation projects in operation .....	35
Areas extensively studied	2,111.070 Has.
Areas intensively studied	1,851.960 Has.
Found needing	
reforestation .....	972,670 Has.
Areas to be reforested in	
the 35 projects ....	476,692 Has.
Areas of established	
plantations .....	27,983 Has.
Area of Cinchona	
Plantation .....	344 Has.
Amount so far spent —	

over 3-1/2 million pesos

The last war practically destroyed all the improvements and plantations already established. The work of decades of hard work and sacrifices went up in smoke or appropriated for use by the enemy aggravated by the activities of the looters and evacuees who must live at any cost.

## REFORESTATION AFTER THE WAR

After the war reforestation work could not be resumed immediately. It was not until January 1946 when funds became available for the purpose. ₱216,000.00 had been released to be spent up to June 30, 1946. Twenty-nine projects were reopened and work had to start from scratch. Where no buildings remained temporary huts had to be made to shelter the project personnel. Work in the projects consisted in retrieving looted property, fixing water systems, cleaning former nurseries or establishing new sites where the old nurseries were over-grown with seedlings left in the seed beds, taking stock of what was left of the project after the war.

For fiscal year 1947 ₱280,000.00 was appropriated under Rep. Act No. 80 for reforestation. The Cinchona Plantation in Bukidnon was granted ₱144,000.00 as revolving fund. During the year, 620 hectares were planted and 117,053 square meters of nursery space used.

### REFORESTATION FUND (REP. ACT NO. 115)

Conscious of the necessity of a steady source of fund to finance the reforestation activities of the government, Congress enacted Rep. Act No. 115 constituting a Reforestation Fund by levying ₱0.50 on every cubic meter of first and second groups timber and ₱0.40 on every cubic meter of third and fourth groups timber cut out and removed from any public forest for commercial purposes. This Act took effect on June 7, 1947 and collections are shown below by fiscal year:

<i>Fiscal Year</i>	<i>Collection</i>
1947-1948	₱437,515.71
1948-1949	862,985.20
1949-1950	908,087.73
1950-1951	1,192,390.32
1951-1952	1,310,255.44
1952-1953	1,025,694.52
1953-1954	1,440,419.91

**TOTAL . . . . ₱7,177,348.83**

From the fiscal year 1947-1948 to the fiscal year ending June 30, 1954, an average expenditure in round figure of ₱890,000.00 had been spent every year. This, certainly is an impressive figure based upon pre-war values. But considering that today salaries and wages have risen to a level four times that of pre-war level, that amount is certainly not much. However, the following data is here presented to show the status of the reforestation work today:

Number of reforestation project in operation . . . . .	38
Number of nurseries for cooperative planting . . . . .	12
Total area of nurseries . . . . .	174 Has.
Total area of existing plantations left after the war . . .	5,230 Has.
Area of plantations established after the war . . . . .	6,470 Has.
Total area of plantation now under maintenance . . . . .	11,700 Has.

For a more comprehensive idea on the magnitude and progress of reforestation the following table is presented:

<i>Cable Address:</i>	<i>Telephone:</i>
BENGUETCON	3-34-08

*Purchasing Office*  
Tel. 3-34-07

**BENGUET CONSOLIDATED  
MINING CO.**

P.O. Box 817  
Manila, Philippines

**TABLE SHOWING THE REFORESTATION PROJECTS  
AND THEIR ACCOMPLISHMENTS**

<i>Name of Reforestation Projects</i>		Year established	Area of Nursery (Sq. M.)	Proposed Area to be reforested	Area Actually Planted (Has.)	Percentage
1. Makiling	Los Baños, Laguna	1910	77,631	3,900	438	11.2
2. Cebu	Camp 7, Cebu	1916	5,844	2,690	749	27.8
3. Caniaw	Bantay, Ilocos Sur	1919	54,216	35,236	347	0.9
4. Arayat	Pampanga	1919	15,000	3,710	537	14.4
5. Impalutao	Impasugong, Bukidnon	1927	29,998	1,000	330	33
6. Ambuklao	Bokod, Benguet, Mt. Province	1928	4,000	29,980	376	12.2
7. Cinchona	Kaatoan, Malaybalay, Bukidnon	1929	71,260	3,192	453	4.9
8. Paraiso	Nueva Era, I. Norte	1930	45,101	26,160	705	2.7
9. Salinas	Pingkian, N. Vizcaya	1931	56,681	5,400	402	7.4
10. San Jose	San Jose, N. Ecija	1931	68,764	20,000	596	2.9
11. Siquijor	Larena, Siquijor	1937	11,054	488	300	61.5
12. Carranglan	Carranglan, N. Ecija	1937	77,286	14,800	633	4.2
13. Marinduque	Boac, Marinduque	1937	190,000	3,480	138	3.9
14. Itogon	Itogon, Benguet, Mt. Province	1937	13,200	32,500	420	1.3
15. Bohol	Carmen, Bohol	1937	98,559	2,920	633	2.1
16. Bulusan	Bulusan, Sorsogon	1937	10,000	3,673	52	1.4
17. Cabunagan	Bauko, Mt. Province	1937	42,816	27,380	913	3.3
18. Aringay	Pugo, La Union	1938	17,500	14,930	69	.4
19. Roosevelt	Dinalupihan, Bataan	1938	3,390	1,480	127	8.5
20. Magat	Bagabag, N. Ecija	1938	10,000	20,050	138	.6
21. Lagangilang	Lagangilang, Abra	1938	265,000	38,500	353	9.1
22. Kennon Road	Benguet, Mt. Province	1938	5,234	5,200	476	9
23. Canlaon	Murcia, Neg. Occ.	1938	22,890	6,120	293	4.2
24. Sto. Tomas	San Marcelino, Zambales	1938	11,465	10,000	119	1.1
25. Baguio	Benguet, Mt. Province	1938	2,333	30,560	804	2.6
26. Consuelo	Sta. Fe, N. Vizcaya	1935	160,000	12,000	101	.8
27. Nasiping	Gattaran, Cagayan	1939	55,690	4,720	200	4.2
28. Malaybalay	Malaybalay, Bukidnon	1939	27,813	1,750	323	18.5
29. Manleluag	Mangatarem, Pangasinan	1939	40,400	91,700	26	2.8
30. Bacnotan	Bacnotan, La Union	1948	30,000	115	16	13.9
31. Nabua	Nabua, Cam. Sur	1949	81,496	1,500	59	3.9
32. Liuanag	Tumauini, Isabela	1949	2,885	5,100	127	2.4
33. Dingle	Dingle, Iloilo	1949	6,885	260	149	51.7
34. Malasag	Cagayan, Or. Misamis	1949	58,499	900	121	13.4
35. Sibalom	Sibalom, Antique	1949	15,000	5,620	34	.6
36. Basilan	Basilan City	1951	15,866	15,000	102	.6
37. Sta. Cecilia	Tagkawayan, Quezon	1953	16,000	16,000	—	—
38. Anakan	Gingoog, Or. Misamis	1953	3,500	3,900	15	.3
12 Forest Nurseries			99,875	—	26	—
<b>TOTAL</b>			<b>1,744,992*</b>	<b>501,914</b>	<b>11,700</b>	<b>2.3</b>

\* The nursery area of Cinchona is not included.

It will be noted from the foregoing table that there are only 11,700 hectares so far planted out of about half a million hectares embraced in the 38 reforestation projects.

Yet, this total area is not the only area that needs to be reforested. Those who are prone to look at statistics will call attention to the existence of 5,073,300 hectares of open grass-

lands scattered throughout the country and say without hesitation that this vast tracts of wasteland should be reforested. When they point to the whole five million hectares and see what has been planted so far, they begin to fold under their own delusion and despair, saying and pointing an accusing finger upon the Bureau of Forestry that "reforestation in the Philippines is a **"FAILURE"**". It will take centuries to reforest. This is unfair.

Of the total area of 5,073,300 hectares of open grassland representing 17.06% of the land area of the Philippines, 2,727,200 or 9.17% are potential agricultural lands,

955,500 or 3.21% are pasture lands and 1,390,600 or 4.68% are considered for reforestation. Even this area may reveal upon intensive planting survey that a portion may be non-plantable because it is bare rocks or too steep and another portion may not need artificial planting because of the presence of some mother trees there are plenty of small natural reproductions.

The following table shows the location by provinces of areas that are classified as needed for reforestation, as compiled by the Division of Land Classification of the Bureau of Forestry:

**TABLE SHOWING AREAS TO BE REFORESTED AND PERCENTAGE BASED ON LAND AREA BY PROVINCES**

<i>Province</i>	<b>REFORESTATION</b>	
	<i>Area</i>	<i>Per Cent</i>
1. Abra	22,300	5.85
2. Agusan & Butuan City	100	0.10
3. Albay & Legaspi City	29,300	11.36
4. Antique	31,000	11.57
5. Bataan	300	0.23
6. Batanes		
7. Batangas & Lipa City	27,900	9.01
8. Bohol	76,900	
9. Bukidnon	40,800	5.08
10. Bulacan	13,200	4.99
11. Cagayan	37,400	4.16
12. Camarines Norte		
13. Camarines Sur & Naga City	3,200	0.60
14. Capiz & Roxas City	22,400	5.08
15. Catanduanes		
16. Cavite & Cities of Cavite and Tagaytay	6,800	5.28
17. Cebu & Cebu City	83,300	17.11
18. Cotabato	71,400	3.11
19. Davao & Davao City	12,100	0.62
20. Ilocos Norte	37,400	11.04
21. Ilocos Sur	48,700	18.14
22. Iloilo & Iloilo City	23,600	4.45
23. Isabela	48,100	4.56
24. La Union	10,700	7.79
25. Laguna & San Pablo City	4,100	3.41
26. Lanao & Cities of Dansalan and Iligan	26,700	4.00
27. Leyte & Cities of Tacloban and Ormoc	5,500	0.69
28. Marinduque	2,500	2.72
29. Masbate	66,900	16.44
30. Mindoro Occidental	59,900	11.14
31. Mindoro Oriental	52,400	11.14
32. Misamis Occidental & Ozamiz City	3,400	1.64
33. Misamis Oriental & Cagayan de Oro City	5,600	1.43
34. Mt. Province & Baguio City	103,800	7.34

<i>Province</i>	<i>Area</i>	<i>Per Cent</i>
35. Negros Occidental & Bacolod City	32,300	4.27
36. Negros Oriental & Dumaguete City	31,200	5.87
37. Nueva Ecija & Cabanatuan City	60,500	11.02
38. Nueva Vizcaya	35,100	5.16
39. Palawan	26,300	1.78
40. Pampanga	11,900	5.56
41. Pangasinan & Dagupan City	19,900	3.80
42. Quezon	9,400	0.79
43. Rizal & Cities of Manila, Pasay and Quezon	6,900	3.3.1
44. Romblon	4,400	3.32
45. Samar & Calbayog City	3,600	0.26
46. Sorsogon	2,100	1.02
47. Sulu	28,000	9.95
48. Surigao	700	0.09
49. Tarlac	81,800	26.89
50. Zambales	28,100	7.71
51. Zamboanga del Norte & Zamboanga City	15,700	1.82
52. Zamboanga del Sur & Basilan City	15,000	1.82
<b>TOTAL</b> .....	<b>1,390,600</b>	<b>4.68</b>

Many of the areas indicated above are not comprised in the present reforestation areas but the watersheds of the most destructive rivers are all under the established projects. It is unthinkable to simultaneously reforest all the area indicated above out of present available funds. It would be spreading the work too thinly barely showing any tangible result. As a matter of fact even now we have too many projects.

#### AN APPRAISAL

A view of the whole situation will give one the impression that reforestation with government funds is too costly and too slow a process. But past experience has proven that it can be done and the writer honestly believes that the pace can be accelerated four times and the cost can be cut down to as low as ₱100.00 per hectare to establish a forest plantation, may be less.

The Bureau of Forestry before the war had to go begging for funds all the time and the work had been desultory and inconsistent. Then as well as after the war much of the funds allotted were for construction of buildings, sheds, water systems, seedbeds, paths and ridges, purchase of equipment, supplies and materials so that plantings had to be necessarily much less. Once

the nurseries are rehabilitated then more plantings can be done.

In the evaluation of the work many fail to see the other benefits that can be derived from the reforestation projects. These projects have easily become meccas for excursionists and are themselves parks where people go for study and recreation. Thousands visit our projects annually. Then too are the employment of hundreds nay thousands of men who, otherwise would be unemployed.

It is estimated that about one million hectares of open lands will need to be reforested all over the country but the writer maintains that present supply of technical men and with present funds available, reforestation should be confined, at least to the already intensively studied areas inside the watersheds of the principal destructive rivers in order to obtain the best result. These areas total to only about half million hectares.

These areas will cost about ₱50,000,000.00 to reforest at the rate of ₱100.00 per hectare and at the rate of 4,000 hectares annually, it will take 125 years to complete the project. But every year the procedure and methods should be reviewed and studied

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