BUKIDNON

GENERAL DESCRIPTION

Bukidnon (Plate VII) is an inland province in the Island of Mindanao, bounded on the north by Misamis, on the east by the provinces of Agusan and Davao, on the south by Cotabato, and on the west by Cotabato, Lanao, and Misamis, between 124° 19′ and 125° 20′ east longitude, and 7° 22′ to 9° 3′ north latitude. It has an area of 3,871 square miles and 45,000 inhabitants. In other words it is larger than the States of Rhode Island and Delaware combined.

The boundary of Bukidnon has been changed from time to time, and as now constituted in the east it follows a chain of mountains, as is also true of most of the Lanao-Bukidnon boundary. In the north the border line has been somewhat arbitrarily fixed along a line supposed to separate the Christian Filipinos from the Non-Christian people in the highlands of that part of Mindanao, in the south to separate the Bukidnons from the Cotabato Moros.

The present boundaries of Bukidnon, like all provincial boundary lines in Mindanao, have been drawn with a view of dividing the territory into provincial units that have common interests of communication, intercourse and population, that can be easily reached from the provincial capital and hence can be administered to the best advantage.

According to a table prepared by the Bureau of Forestry, in 1919, about 45 per cent of the area of Bukidnon, or 454,980 hectares, still remains commercial forest. There are 287,123 hectares, or 28.6 per cent of the land in prairie or cogon, *Imperata cylindrica;* only 2.2 per cent, or 21,660 hectares are in cultivation; 20.5 per cent, or 206,000 hectares, is still unexplored territory.

Topographically Bukidnon is a plateau land with vast, level, more or less rolling plains out of which rise several mountains with peaks here and there attaining an elevation of 1,500 meters or more, lying between a chain of forested mountains in the east and another in the west along the northern part of the Lanao border. While on the mountain slopes the tillable land fre-

quently exceeds this elevation, the crest of the undulating plains is reached at Dalauangan at an elevation of 915 meters, whence there is a general downward slope to Misamis Province in the north and to Cotabato in the south. The plains are intersected by several large canyons of which the Kulaman canyon south of Maluko is the largest. Ravines with rivers or streams of abundant cold, clear water are numerous.

All the rivers in Bukidnon are too small or their descent is too rapid to permit navigation. The largest is the Pulangi or Cotabato River, rising in a small lake on Mt. Gimankil in the northeastern corner of the province, which together with its numerous tributaries, drains the eastern central and southern part of Bukidnon and enters Cotabato at Balatukan. (Plate VIII *b*.) The Cagayan River originates on Mt. Kitanglad and drains the northwestern part of Bukidnon emptying at Cagayan.

The Tagoloan River drains north-central Bukidnon, flowing into Makahalar Bay at Tagoloan. The numerous falls and rapids in the province have a sufficiently ample volume of water to permit the construction of many hydroelectric plants for industrial and transportation purposes.

Mt. Kitanglad, in about the center of Bukidnon, rising to an elevation of about 2,340 meters, and Mt. Kalatungan to the southwest of Kitanglad, perhaps 2,000 meters high, are the most prominent mountains. The rise of both these mountains is so gradual that the greater part of their slopes can be used for agricultural purposes. When transportation costs and the difficulties of approach are considered, were Cinchona culture in the Philippines on a large scale to be seriously contemplated, it seems not only possible but even probable that the higher slopes of Kitanglad and Kalatungan might be found preferable for this crop to the vastly more inaccessible country in the interior of the Mountain Province in northern Luzon.

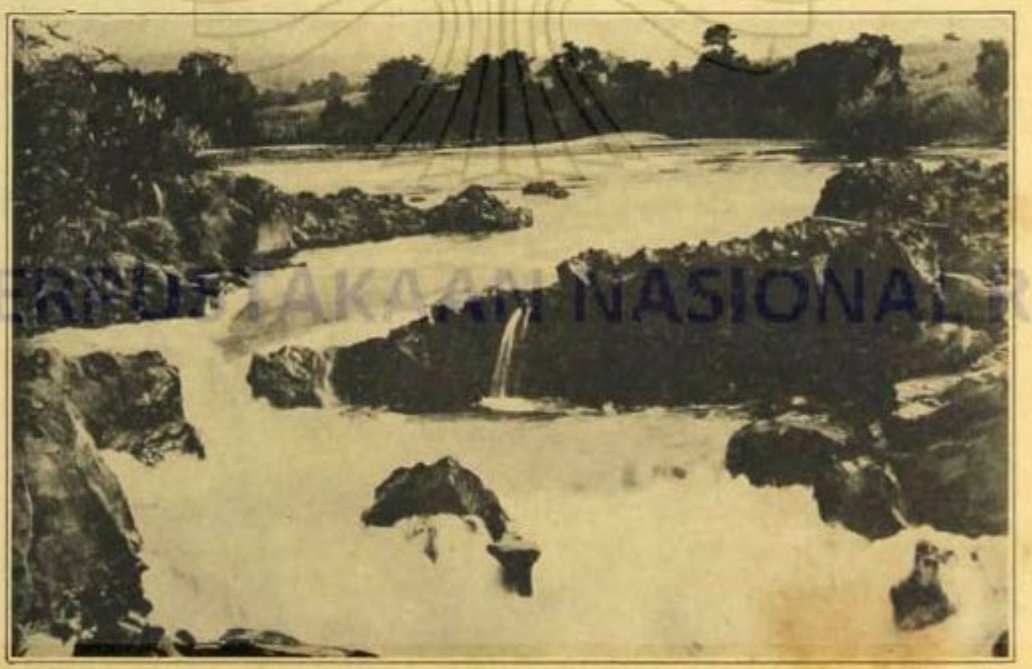
Considering the topographical features of Bukidnon in relation to its accessibility and the routes of travel from the coast to the interior, Bukidnon may be divided into three districts.

1. The Claveria or northeast district including the territory north of Silo-o, Malitbog, and Santa Inés;

2. Central and south Bukidnon, including the country south of the mountain chain extending from Mt. Tago to Santa Inés west of Agusan River and east and south of the agglomerations of mountains about Kalatungan and Kitanglad;

3. The Talakag or western district, between the mountains just mentioned and the provinces of Lanao and Misamis.

(*a*) View on the road from the coast to Central Bukidnon. Makahalar Bay in the distance



(*b*) Falls of the Pulangi (Cotabato) River, near Maramag, Bukidnon

age of about 300 meters, until the land again slowly slopes down and southward to merge with the grassy plains in the Cotabato Valley. Though there are exceptional areas here and there, generally speaking the land becomes more fertile as one travels southward. The vegetation on the plains consists of various grasses. While it is present, cogon, *Imperata cylindrica*, is not, as a rule, common on the plains north of Dalauangan. Not before one arrives south of Malaybalay does it begin to show more than the most ordinary vigor.

The fertile country about Linabo to Bogkaon gives way to poorer land in Mailag whence extends a billowy plain to Lurugan some 450 meters high above the sea. Then more pronounced hills covered with heavy cogon and secondary forest until one arrives in Giniyuran at 630 meters altitude. Finally, passing through the outskirts of the virgin forest one comes out on another cogonal valley at Dagumbaan. Northwest of this place lies a wide belt of virgin forest. In the southwest, as the Bukidnon country merges into Lanao and Cotabato the land is again mostly open. Again, the southern boundary of Bukidnon passes through a big virgin forest extending into northeastern Cotabato.

The Talakag district includes the northwestern part of Bukidnon between Lanao and Misamis, Mt. Kalatungan and Mt. Kitanglad, and the mountain chain extending from the latter mountain to Kiliog, and is reached from the cost by a road extending from Cagayan to Talakag and Tikalaan, almost due south. The valley is drained by the Cagayan River and its tributaries and is said to have an elevation of approximately 350 meters above sea level. The mountain chains in the west and northwest, along the Misamis and Lanao border, are covered by a commercial forest which descends even to the lower slopes and in the south extends to Mt. Kalatungan and Mt. Kitanglad. The remainder of the district is a vast, rolling grass-covered plain not greatly differing in characteristics from the central Bukidnon prairies.

On the whole the Talakag district is, perhaps, the most fertile part of Bukidnon.

The Bukidnon country everywhere is expressive of bigness and of latent undeveloped resources but nowhere is the scenery so impressively magnificent as in the open, wide-flung, verdant plains on the road from Malaybalay to Mailag, which must be seen in order to be appreciated. In many other provinces the soil is richer and the vegetation is more luxuriant, and they

possess other advantages, such as convenient transportation; but nowhere else as here does the Philippines seize upon one's imagination and impress one's senses with their enormous latent wealth; their tremendous opportunities for economic development.

In scenic beauty the approach to Dansalan from Iligan is markedly superior to the ascent to Bukidnon, and Lake Lanao is, of course, an added attraction, but as a health resort for Mindanao and Visayas, Bukidnon is vastly preferable because of its drier climate. The higher elevations are also somewhat more accessible than in Lanao. Everything taken into consideration the upper slopes of Mt. Kitanglad and Mt. Kalatungan are, perhaps, more suitable for a health resort than any other locality in Mindanao.

Except for small patches of abacá, rice, corn, and various other food crops and some pasturage, the land is still unoccupied and open for settlement.

Game, in the form of deer, wild hogs, ducks, and pigeons is abundant.

CLIMATE AND SOIL

Due to the elevation the climate of Bukidnon is cool, bracing and exceedingly agreeable, especially in the higher altitudes, and as a rule a gentle breeze over the plains during the day adds still more to one's feeling of comfort.

Rainfall records are unfortunately entirely lacking in Bukidnon, but the precipitation is said to be well distributed throughout the year, the driest period occurring from January to May. The verdant plains which greet the eye of the traveler at all times of the year give credence to this statement.

Judging from the vegetation and such local information as it has been possible to obtain, the annual rainfall on the plains of Bukidnon probably approximates 1,800 millimeters annually, while on the higher mountain slopes it possibly exceeds 2,500 millimeters. Again, the volume of rainfall apparently increases as one goes southward, until at Maramag the annual precipitation is probably not less than 3,000 millimeters.

The soil varies from a poor, stony and gravelly soil near the Misamis border to a friable, rather thin loam or volcanic ash rather deficient in humus in central Bukidnon to quite rich lands in the south of the province. The greater part of the land is rich enough to produce good crops, but everything considered, the open plains of Bukidnon are inferior in fertility to the lands in Lanao and Cotabato.

POPULATION

The population is divided among Bukidnons, Manobos, Moros, Visayans, and Caucasians. Of these the Bukidnons are the most numerous, constituting probably one-half of the population. They are intelligent and industrious and make good laborers, and live in organized settlements on the plains. In numerical strength the Manobos rank second in importance, but as a large part of them still lead a semi-nomadic life, they can not be considered a factor in the agricultural development of the province. The number of Moros, who live mostly in the southern and western part of Bukidnon, is small. The Visayans are few in number, and there are probably not more than a dozen white residents in the province.

AGRICULTURAL INDUSTRIES

Rice, abacá, corn, and coffee constitute the principal crops of Bukidnon. The following table shows the present status of agriculture in the province:

The rice is exclusively upland and is grown on the plains. (Plate IX *a*.) On the average the soil in Bukidnon is thinner and poorer than in Lanao and Cotabato, and the yield is not equal to that in these provinces, but it is undeniable that very large quantities of rice, corn, and legumes could be grown on the vast highland plains of Bukidnon also, sufficient to sustain a large local population and yet leave a large surplus for export. The prospects for lowland rice are less favorable.

Very little corn and legumes are planted.

As in Cotabato, adlay, *Coix lacryma-jobi* L., is cultivated for its edible grain but, of course, on a very small scale, though it does well and is very productive. (Plate IX *b*.) It is by no means impossible that this may be found to be a profitable grain here. Wheat might be grown, though the yield would probably not be very heavy.

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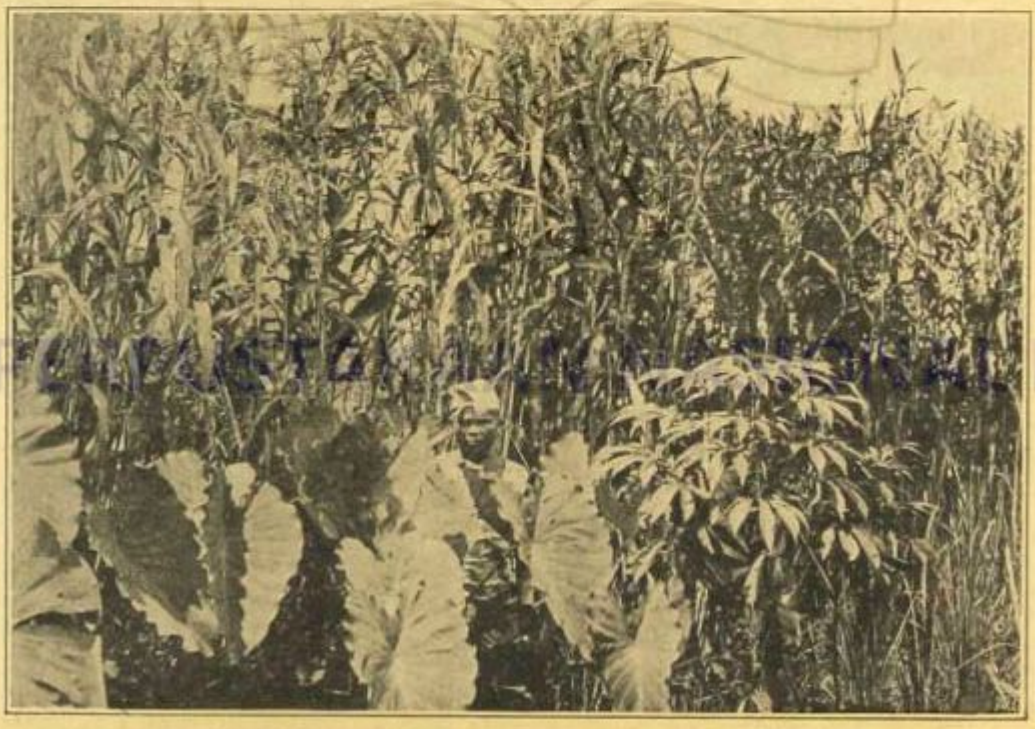
TABLE II.—*Agricultural statistics of Bukidnon, 1920*

Crop	Area in hectares	Yield	Value
			Pesos
Rice	1,020	[a] 8,871	54,864
Sugar cane (sugar)	93	[b] 30	9,263
Coconuts (copra)	96	[b] 25	7,600
Abacá	6,277	[b] 3,415	762,410
Corn	1,127	[a] 10,012	75,550
Tobacco	39	21	10,250
Total	8,652		919,937

[a] Hectoliters. [b] Metric tons.

(*a*) View in the Interior of Bukidnon



(*b*) Adlay, *Coix lacryma-jobi*, near Malaybalay, Bukidnon

Camotes and cassava are the most extensively planted root-crops, though gabi is grown to some extent. Abacá is grown mostly in the canyons between the plains in the southeast towards Davao, and in the Talakag district. Coffee raising is mostly confined to the settlements on the mountain slopes and grown on a very small scale. (Plate X.) Few vegetables are planted but all temperate and most tropical ones thrive well under proper care. Excellent oranges and limes are found in some localities, such as Sumilao, but other fruits are scarce. Many species which are common in other parts of the Philippines still remain to be introduced in Bukidnon.

Bukidnon is preëminently a pastoral country, but all told the herds probably do not as yet number more than 12,000 head. While there are several small herds of from 25 to sometimes exceeding 100 animals, there are only three herds of any considerable size, that of the Agusan Coconut Company, which now numbers about 4,000 animals, located at Tankulan, that of Mr. Dean C. Worcester, in Dalauangan; and that of the Bukidnon Cattle and Coffee Company in Santa Fé. This last corporation is also engaged in the breeding of pure-bred Indian cattle, horses, swine and poultry. Most of these herds are still made up of native cattle, but they are rapidly being converted into robust mestizo herds by the introduction of Indian Nellore bulls. (Plate XI *a*.)

At Mailag, half a day's ride beyond Malaybalay, horse raising in a small way has been quite successful. (Plate XI *b*.)

NATURAL RESOURCES AND INDUSTRIES OTHER THAN AGRICULTURAL

Lanao, excepted, Bukidnon has a smaller area of commercial forest than any of the provinces discussed in this volume of the REVIEW, and the forests are so distant from the coast that the expense of transportation of the lumber would be so excessive as compared with that produced nearer the coast in other parts of the Philippines that lumbering will probably never be undertaken in Bukidnon until the more accessible forests near the coast have been exhausted. Almaciga and bejuco are collected and exported in small quantities but the revenue from this source could be greatly increased.

Cinnamon, *Cinnamonum mindanaense*, locally known as *kami*, of very good quality grows wild in Bukidnon as in all other provinces in Mindanao, and bark might be collected in considerable quantities for export if the attention of the native inhabitants was called to its commercial value. During the Spanish

occupation of the island this spice was exported from several points. As a matter of fact the cinnamon obtained from the *kami* is so good and the plant itself grows with such freedom that it is believed that a Philippine cinnamon industry could be established based on the culture of this species.

Buntong, the tall, stout bamboo so common at Lake Dapao in Lanao Province, is also found in Bukidnon, where it is used for construction purposes. Frequently attaining a diameter of 20 centimeters, the buntong is less durable and weaker than the ordinary bamboo, *Bambusa spinosa* Rxb.

TRANSPORTATION AND COMMUNICATIONS

Without sea coast and navigable rivers all transportation in Bukidnon is naturally on land. The status of the present road system has already been touched upon on a previous page. Here as in the other provinces a telephone system has been installed connecting all the more important municipalities and Cagayan, Misamis, which is the connecting link between Bukidnon and the outside world.

Cagayan is, of course, the seaport nearest to Bukidnon, but the protected anchorage is small, and the adjacent land is low and swampy (Plate XXVIII). Since a careful topographical survey would probably show that the interior of Bukidnon can be more easily approached at less cost by rail from Parang, Cotabato, than from Cagayan, the province is likely first thus to find an outlet to the sea at Parang with its superior natural advantages as a railroad terminus and harbor, or else at Kolambugan, Lanao, especially considering that there is already a good road from Cagayan to Bukidnon.

TRADE

Abacá and coffee are the only exports of importance, though small quantities of cacao, bejuco, and almaciga are also brought to the coast. Since the imports for 1918 amounted to about ₱80,000 the total exports probably did not greatly exceed ₱100,000 in value. Approximately one-third of the imports was rice. The other major imports were sugar, cloth, and salt.

PROSPECTIVE INDUSTRIES AND DEVELOPMENT

Because of the wide, well watered, verdant plains, Bukidnon is apparently predestined to become one of the principal stock raising provinces of the Philippines, and though the land is well adapted to a variety of crops one may expect this province to remain chiefly a pastoral country for many years ahead.

Arabian coffee in the third year. Sumilao, Bukidnon

(*a*) A herd of cattle. Tankulan, Bukidnon

(*b*) Native ponies. Bukidnon

The vegetation in Cotabato is more luxuriant, but in area Bukidnon is unrivalled as a prospective cattle region in Mindanao, and it is one of the four foremost provinces in the Archipelago in respect to area in pasturage. Corporations wishing to engage in stock raising would here find almost unlimited opportunities to engage in this industry in a big way and under exceptionally favorable conditions. The table lands have a cool climate that in the Philippines is unsurpassed in agricultural areas of similar extent, no mean advantage especially to the European. Good water is abundant everywhere. Again, the isolation of Bukidnon renders protection against contagious animal diseases a comparatively simple matter.

The Bukidnon coffee has attained an enviable reputation for quality but the production is limited in quantity. On a large scale Arabian coffee cannot, of course, be recommended for planting because of the *Hemileia*, but several of the blight resistant coffees from Java have shown up very favorably, and in time coffee may confidently be expected to rival stock raising in importance.

In the interior abacá is already quite an important product, comparatively speaking, and under the small culture system this crop may be extended very considerably though it is not recommended to the big planter. In this connection it might be said that to the homeseeker of limited means no province in Mindanao would appear more attractive than Bukidnon. The climate is healthy and agreeable, the water is good and plentiful, there is abundant pasture for cattle everywhere, the land is adapted to crops easily handled under a small culture system, such as rice, corn, and coffee, and it can be cleared without difficulty.

Tea has been introduced and there is apparently no reason why this crop should not be successfully grown on a large scale. As has already been stated on a previous page the prospects for cinchona culture in the Philippines are most favorable in Bukidnon. Camphor might be grown here also.

Ceara rubber was introduced many years ago and being easily propagated it has become dispersed to the most remote settlements. The trees have made a remarkable growth and it is by no means impossible that this rubber may become a crop of some importance in Bukidnon.

Except, perhaps, on the lower plains as one descends into Cotabato in southern Bukidnon, Para rubber and coconuts are not recommended as plantation crops for this province.

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All plantation ventures presuppose the importation of labor from other regions.

Nowhere is the pineapple more at home than in Bukidnon. The fruit of the Cayenne variety, so extensively grown in Hawaii, and which has been grown at Diklum for several years is here unsurpassed in size and quality. With ample capital to push the project, a big, prosperous fruit canning industry might well be established here. In this connection it might be stated that the largest pineapple center in Hawaii is located in a region very similar to Bukidnon in the general topographical features, in elevation, climate and soil, though there is somewhat more rain in Bukidnon. As the Island of Mindanao is settled and convenient transportation routes are opened up, Bukidnon may be expected to supply the markets of Mindanao and the Visayas with citrus and other fruits requiring a cool climate for their best development.

Finally, the geographical location, climate and elevation combine to make Bukidnon—with special reference to Mt. Kitanglad and Mt. Kalatungan—the logical territory for a mountain resort for Mindanao and the Visayas.

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