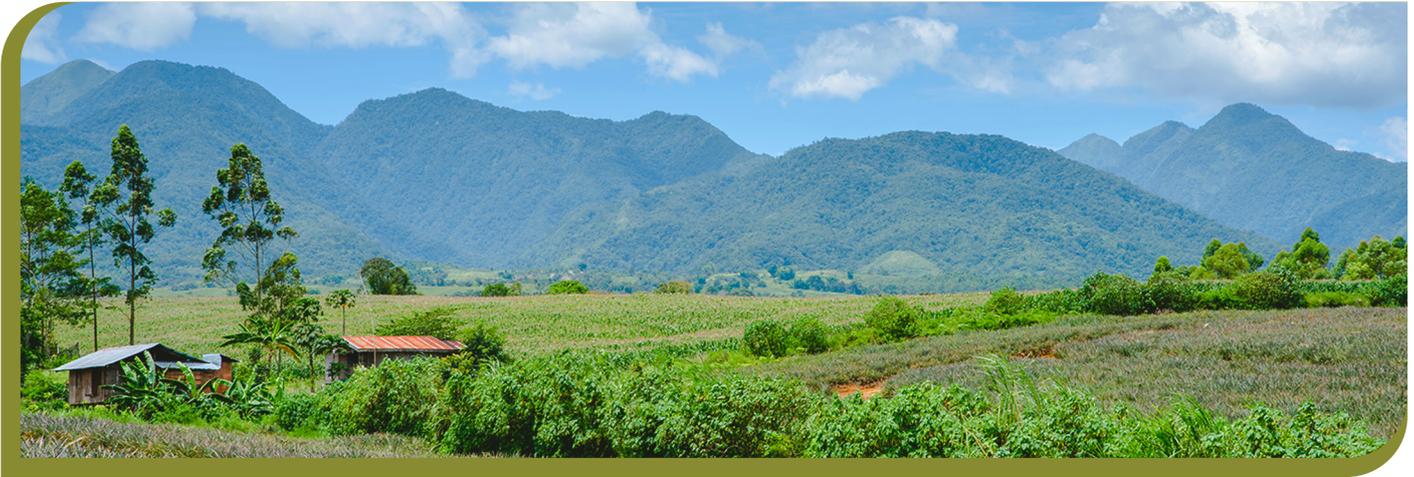


Bukidnon and Misamis Oriental: Northern Mindanao's Ecological Haven



The provinces of Bukidnon and Misamis Oriental are known for their rich soils, lush forests, majestic peaks, and a booming economy. The region is not only known for its plantations, but also its cultural and ecological wonders.

The two provinces lie in Northern Mindanao (Region 10), an administrative region, with at least 60% of its total land area classified as forest lands. The region includes the provinces of Bukidnon, Misamis Oriental, Misamis Occidental, Camiguin, and Lanao del Norte, together with two highly urbanized cities: Cagayan de Oro and Iligan.

Both Bukidnon and Misamis Oriental are mountainous and have expansive plateaus, with an average elevation of 3,000 feet. The Cagayan de Oro River Basin, one of the major river basins in the country, is located in the landscape. Most of its headwaters come from Bukidnon and flow towards Cagayan de Oro, before discharging into the Macajalar Bay.

Known as the watershed of Mindanao, Bukidnon has six major rivers cutting through the province. The largest and longest of these rivers, the Pulangi River, is a tributary of Mindanao's Rio Grande, while the Cagayan River watershed on the Kitanglad Mountain Range serves as Cagayan de Oro's primary reservoir of potable water.

Misamis Oriental is a predominantly coastal province bounded by two bays on the North, Macajalar, and Gingoog. It has a vast river system in its central portion originating from the Bukidnon mountains, which borders the province to the south. The province's capital is Cagayan de Oro (CDO), a first class, highly urbanized city, considered the 10th most populous in the country.

FORESTS AND PROTECTED AREAS

Bukidnon's total land area is 1,049,858 hectares. Sixty-two percent (650,912 hectares) of which is classified as forest land. The province ranks ninth highest nationwide in terms of forest cover. That is at least 38 times the size of Quezon City, the country's most populated urban area.

Land Classification of Bukidnon, 2015

	Area (hectare)	Percentage Share
Alienable and Disposable (A&D)	398,946	38
Forest Land	650,912	62
TOTAL	1,049,858	100

However, most of Bukidnon's lands are used for growing crops. Production land within alienable and disposable areas and forest land have the lion's share of the allocation at 63.23%.

Still, the province has several protected areas, which includes Mount Kitanglad Natural Park, Mount Kalatungan Range Natural Park, and Mount Balatukan Range Natural Park. Motions have also been filed to place the following mountain ranges under the protection of the National Integrated Protected Areas System: Pantaron, Mount Tangulan, Mount Kimangkil, and Mount Tago.

As for Misamis Oriental, it has three protected areas: Mimbilisan Protected Landscape, Initao-Libertad Protected Landscape and Seascape, and Mt. Balatukan Range Natural Park.



BUKIDNON AND MISAMIS ORIENTAL: RICH IN AGRICULTURE AND INDUSTRY

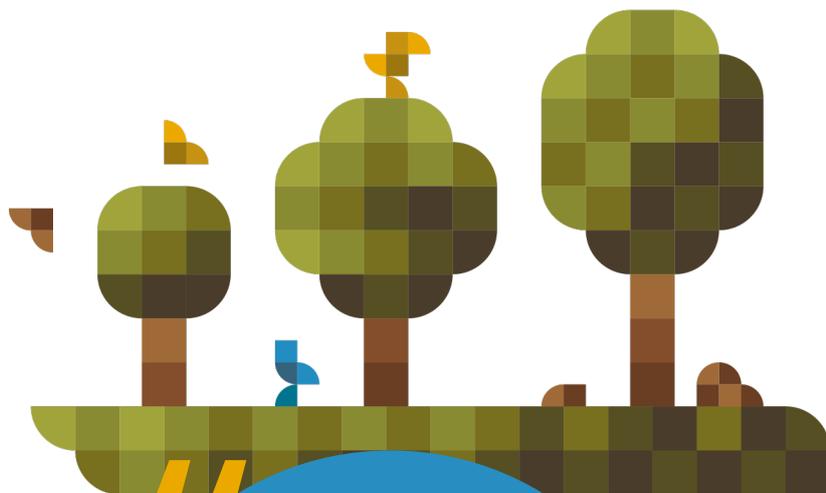
With its rich farming culture, Bukidnon is also known as **“The Food Basket of Mindanao”**. It has a wide variety of agricultural crops, such as palay, corn, pineapple, banana, and coconut. From 2007-2012, the production of all major crops experienced a steady increase, with bananas seeing the greatest increase from 466,857 metric tons in 2007 to 1,156,380 metric tons by 2012.

Cagayan de Oro City in Misamis Oriental serves as the regional center and business hub of Region 10, with the majority of its land being agricultural, followed by open spaces. CDO's economy is predominantly industrial, with multiple multinational companies setting base in the city. In 2012 alone, the net income of the city was approximately PhP 2 billion.

EFFECTS OF AGRICULTURAL ADVANCEMENTS AND CLIMATE CHANGE

Unfortunately, the abundant agriculture that fuels Bukidnon's economy is also largely responsible for the province's deforestation. Only 25% of the forest remains in Bukidnon as farming activities expand to the slopes of mountains—displacing wildlife and disrupting natural waterways. People, especially those who live in forests, tend to forego the environmental impact of their livelihoods to provide sustenance to their families. This leads to neglect and a lack of appreciation for the forests' role in mitigating the effects of climate change in the region.

True enough, CDO has experienced some of the worst floods in recent memory. In 2011, Typhoon Sendong hit Northern Mindanao, triggering a series of flash floods that left other parts of Mindanao devastated^[1]. The 181-millimeter rainfall over a 24-hour period was too much for the heavily denuded mountains of Bukidnon, sending water to the low-lying city of CDO and inflicting almost PhP 1 billion worth of damage to infrastructure, agriculture, and fisheries. In response to this, preventive measures were crafted and implemented. However, the situation repeated itself in January 2017, when prolonged heavy rain resulted in parts of CDO and Misamis Oriental being submerged^[2]. As long as deforestation continues in Bukidnon's forests, these floods will only grow in magnitude.



TURNING A NEW LEAF

The conservation of forests must be prioritized to not only curb the effects of disasters and climate change, but also to maintain Bukidnon and Misamis Oriental's ecosystem and biodiversity. As one of the provinces with the highest forest cover in the Philippines, Bukidnon may leave many species homeless, whether through deforestation or flooding.

Moving forward, a sustainable approach to plantation expansion must be developed. Currently, the payment of ecosystem services is being implemented as a reforestation strategy, as well as the education and incentivization of the local community for protecting Bukidnon's forest to mitigate the damage of flash floods in the region.

Moving forward, a sustainable approach to plantation expansion must be developed by the corporations who reside in Bukidnon.