
The Cocoa Tree and the Environment

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The cocoa tree, *Theobroma cacao* Linnaeus, is the world's sole source of chocolate and chocolate-derived products. Chocolate is obtained from the seeds of the cocoa tree. Native to the American tropical rain forest where it has been cultivated for more than a thousand years, the cocoa tree, also called "cacao," has been in commercial cultivation for more than a century and remains a crop and source of livelihood for relatively small-scale growers or farmers. Today it is also cultivated in plantations throughout much of the humid or wet tropics. The expansive, plantation-style of growing chocolate blossomed after European contact with the New World in the sixteenth and seventeenth centuries, leading to cocoa becoming a pan-tropical cash crop (Figures 1 and 2). In modern times, massive areas of tropical wet forest have been cleared or thinned to grow cocoa in Latin America, West Africa and Malaysia/Southeast Asia.

COCOA AND CHOCOLATE

While the original, ancient cultivation of the cocoa tree was for the purpose of obtaining a crude beverage derived from the seeds,

modern cultivation is the basis for a large-scale, global commerce. The patterns for both the spread in cultivation and consumption of the prized commodity have steadily expanded. The cocoa tree has become a major source of livelihood for people in West Africa, the Philippines, Indonesia and Southeast Asia. Although consumption is largely confined to vast markets in North America and Western Europe, chocolate now is a popular item in Eastern European nations as well as Asia (Figure 3).

Such global trends point to growing demand and the challenge of keeping the world supplied with chocolate. However, historical patterns of cocoa bean (seed) production indicate the occurrence of major supply cycles. Cocoa has been subject to unstable conditions that drive these cycles, including climate and weather; fungal disease; arthropod and other animal pests; competing and changing sources of labor pools (farming versus industry; farming versus farming); shifts in socioeconomic conditions; and political and governmental conditions and policies. Dramatic trends in cocoa production in Africa, Latin America, Indonesia, Malaysia and other regions

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