

SOIL DEGRADATION IN HAITI: CAUSATIVE FACTORS AND CONSEQUENCES

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THE recovery of soil productivity is undoubtedly one of the most urgent measures needed for Haiti's continued development. On this basis, we undertook an extensive review of the literature concerning the past history of soil degradation—from the precolumbine era to the present—in an effort to identify the principal factors causing the rampant soil degradation suffered by Haiti. Our study was conducted from the three standpoints: physico-natural, political and socio-economic and describes the consequences of these factors. Our main findings are described below.

Centuries of deforestation coupled to a lack of political will in defining land uses have seriously affected soils. Since the times of French colonization, rather than limiting agricultural crops to plateaus, vast expanses were given over to plantations, which even encroached upon the virgin woodlands of mountaintops.

The deforestation of Haiti's woodlands has also been the consequence of territorial defence strategies, without forgetting the country's debt with France in exchange for its political independence, finally paid off in wood. The result has been the expansion of its agricultural boundaries, mainly into mountain areas of steep slope. Indeed, 85% of Haiti's soil loss has been derived from agricultural plots established on slopes exceeding 50%, with no type of soil control or management measures and the use of land practices outside any type of soil conservation plan.

These are the main actions that have had ecological repercussions including the land's complete deforestation, loss of soil fertility and plant cover. To this we would need to add the consequences of climatic change (irregularity and decrease in rainfall, irrigation channel sedimentation, desertification of some zones or regions, increased natural disasters—cyclones, hurricanes, floods—and increased salinity of the water table). Over the last years, poverty (80% of Haitians are currently defined as poor; illiteracy is the highest worldwide) has aggravated matters by promoting the felling and burning of trees. In summary, annual soil loss through erosion is estimated to represent 800.000 \$/year, or 0.26% of the country's gross product; the proportion of irrigated soil used for mechanized agricultural purposes is low, estimated at 11.3% of the total soil area.

Apart from these ecological consequences, soil degradation in Haiti has also had disastrous political and social impacts: outbreaks of local conflicts arising from the interests of land man-

agers and perhaps other divergent practices; the State's reluctance to consider the country's soil degradation a real crisis because of its difficult political situation; an agricultural production that scarcely meets the needs of its increasing population (2.08% yearly growth rate); non capitalization of the farmer; and exodus of the population to the cities abandoning lands.