

Opening Remarks: The Challenge of Environmental Change

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This 16th meeting of Caribbean Foresters is dedicated to assessing the temporal changes experience by Caribbean forests. There is no doubt that environmental change is happening in the Caribbean and that this change affects forests. Environmental change scares many who believe that today's forestry situation is worse than it was in 1982 when Caribbean Foresters began meeting in St. Lucia. However, available information on the cover of Caribbean forests suggests that the area of forest cover has significantly increased in the Caribbean. In fact, the Caribbean region is one of a few places in the tropics where deforestation has been reversed resulting in measurable increases in forest area throughout most islands. This is a remarkable development that is a consequence of the changing economies of Caribbean Islands. Another change in the Caribbean is the focus of forest management, which has shifted from plantation and forest management for timber to increased attention on the importance of all forests to the well being of society. For example, the importance of forests to watershed services, to ecotourism, and to global processes such as carbon sequestration.

Human presence and activities have always been a source of environmental change in the Caribbean, particularly in light of the high population density of islands. The Anthropocene, or the era of human domination over the world, has been anticipated in the Caribbean, which gives us a leg up in experiencing and understanding trends of environmental change that are anticipated for the future in other parts of the world. One example is the high level of urbanization in the Caribbean in comparison with other tropical regions. The Caribbean has levels of urbanization twice as large as those in continental areas. Such high levels of urbanization have consequences over forests, particularly their species composition. In general, the number of naturalized introduced tree species is higher in islands with higher covers of urban areas. Studies show that a high proportion of the emerging forests of the Caribbean are novel forests because their tree and animal species composition include new mixtures of native and introduced species. About twenty five percent of the flora of the Caribbean is non-native. In the island of Puerto Rico, where the study of novel forests is most advanced, seventy five percent of the forest cover involves novel forests and only twenty five percent of the forests are purely native or historic forests.

The forestry situation of the Caribbean is now more complicated than it was in 1982, because not only we view forests on a different light and expect more ecological services from them, but we are also dealing with greater forest areas that include forests that are different from the historical ones we used to deal with. The difference between novel and historical forests is mostly in species composition and age (novel forests are younger). Otherwise, novel forests exhibit similar structure and functioning characteristics as historic forests. Therefore, one can conclude that the forests of the Caribbean have been always evolving and changing in response to the forces of humans and nature that have shaped them over the centuries and millennia.

Given the forestry situation we face, our challenge is to learn how to cope with the consequences of environmental change in our islands. We should not be intimidated by environmental change, but must embrace it because it is an intrinsic common denominator to the history of the Caribbean. It was present in the past, is present today, and will continue into the future. We cannot avoid environmental change.

Today we have new technologies to help us with the task of understanding and coping with environmental change. Technologies we did not have in 1982. For example computers, satellite images, Geographic Positioning Systems, Geographic Information Systems, Internet, iPhones, etc. Information useful for forest conservation is no longer as limiting as it once was. What is limiting is our capacity to absorb, analyze, interpret and act on available information. This is where our Caribbean Foresters meetings have a role. They give us an opportunity to compare notes, share information, interpret results of studies, uncover important trends, and develop networks for follow up actions between meetings. The challenge of environmental change is clear and the collegiality that we develop in our meetings can be a key element to our collective resolve to act, adapt, and improvise in light of an uncertain future.