



Bushfire in Fiherenana and Onilahy Watersheds (SW Madagascar)

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For a long time, fires were regarded as harmful by territory managers, especially by foresters, and today in a context where the protection of the environment debated. European regulations criminalizing fires have been transmitted in the “South” countries during colonization: fires were perceived as a threat to vegetation, which could lead to desertification processes. In that respect, in Madagascar, since its colonization in 1895, “the foresters were alarmed by what they saw as wasteful fires”. Back «In the early 19th century, the island’s petty kingdoms were transformed into a sophisticated modern state, leading to the first recorded state-level regulation of fires». “The state criminalized burning due to concern that fire destroys the island’s natural resources and blocks development».

However, recent studies on bushfire in West Africa, have changed this depiction. «Thus, above the image of a powerful constraint on the vegetation, scientific progress in ecology and paleoecology allowed gaining a better understanding that ecologically, fire is part of savannah systems. Fire is an element of the system that forms savannah landscapes in intertropical countries. For West Africa, the authors use the term ‘pyroclimax’, climax of fire. Generally, in a climax plant vegetation used as reference, unwavering set of operating principles of biophysical processes is required, and an exclusion of human influence. However, it has been admitted that ecosystems need perturbation in order to remove some elements, to make way for young, regenerating stands. Moreover, we notice that plant formations are able to adapt to a new permanent factor ecologic. Systems have the capacity to learn, adapt and self-organize around various factors affected. Human factors can be studied as ecological agents; geosystem determines as a structuring form of natural systems, the anthropisation factor. When the plant vegetation dynamics is ‘artificial nature’, it’s systematically pejorative connotations, whereas heterogenous landscapes generate biodiversity. A number of studies demonstrate the antiquity of anthropogenic actions and the environments resultant have sometimes acquired a patrimonial character. Fire is an example of an agent dictated by the Man actions. His regular and frequent passage change wood plant vegetation into savannah; filter, pyrophiles woody species and grasses. Identify permanent fire spaces could reveal landscapes organised by anthropogenics actions. To study these phenomena, the south-west of Madagascar is a good case. The Public policies have made the choice to strictly prohibit fire because it is identify as the principal agent of degradation of climax wood plant vegetation. Our study aim is to take another look at the role of fire in environmental and landscapes dynamics in south-west of Madagascar on many space and time scales. To account quantitative and qualitative evolutions of surface condition, teledetection method using satellite data Modis and Landsat, are cross which field observations: quantification of biophysical components and land use, surveys and interviews about uses and their transformations, perceptions and representations. Contribution will draw on a characterisation of fire spaces and their evolution since 20 years on the Fiherenana and Onilahy watershed, on the South-west of Madagascar.