

## **Impact de l'exploitation des gisements sur la dynamique des habitats / Mining activity impact on habitat dynamic**

Muhashi H., F. <sup>1,\*</sup>, Dupin, L. <sup>2,\*</sup>

*1- Point focal Biodiversité, Royal Belgian Institute for Natural Sciences, Rue Vautier 29, BE-1000 Brussels, Belgium*

*2- Geological Survey of Belgium, Royal Belgian Institute for Natural Sciences, Rue Jenner 13, BE-1000 Brussels, Belgium*

(\*) Corresponding authors: [francois.muhashy@naturalsciences.be](mailto:francois.muhashy@naturalsciences.be) and [laetitia.dupin@naturalsciences.be](mailto:laetitia.dupin@naturalsciences.be)

The process of human-induced landscape transformation in the copper-cobalt mined affected areas of the Katangan Copperbelt, southeastern Democratic Republic of Congo, has been studied by mean of field observations, multi-temporal remote sensing data, and geographic information system. Comparison of land use maps, processed from Landsat images, clearly showed that over the last 30 years, many areas of high interest for the biodiversity in protected areas are increasingly overlapped by mining activities. The field observations coupled with the remotely sensing results bring out the event or series of events which lead to the ecosystem disturbance involving the alteration of the relationship between organisms and their habitat in time and space.

Thus synchronical observations of the vegetation carried out especially within the Basse Kando natural reserves pointed out the preponderance of a regressive dynamics.

This process is reflected by the decrease of surfaces of the primary habitats, the expansion of savannas replacing natural forests (Muhulu and Miombo), the reduction of the number of layers of vegetations, the impoverishment of the plants species richness and their endemism, especially in the primary metalophytes.

However, in the same territory, the occurrence of pioneer stages of habitats and those increasingly developing was also observed; which reflects a dynamics towards the ecological potentialities in the area of the reserve. Normally this process culminates in the Muhulu forest type. The enclaves where such climax is still represented can serve as starting points of a reinforced conservation.