



QUALITATIVE AND QUANTITATIVE ASSESSMENT OF NATURAL HAZARDS IN THE CALDERA OF MOUNT BAMBOUTO (West Cameroon)

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Mount Bambouto is polygenic stratovolcano of the Cameroon Volcanic Line, build between 21 Ma and 4,5Ma (Nkouathio et al., 2008). It is situated at about 200 km NE of mount Cameroon, at 09°55' and 10°15' East and, 05°25' and 05°50' Nord. This volcano covers an area of 500 Km² and culminates at 2740 m at Meletan hill and bears a collapse caldera (13 x 8 km). Fissural, extrusive and explosive dynamism are responsible of the construction in three main stages this volcano including the edification of a sommital large rim caldera. Mount Bambouto structure gives rise to different natural hazards, of volcanological origin and meteorological origin. In the past time, landslides, floodings, firebush, blocks collapse took place in this area with catastrophic impact on the population. New research program had been carried out in the caldera concerning qualitative and quantitative evaluation of natural risks and catastrophes. The main factors of instability are rain, structure of the basement, slopes, lithology and anthropic activities; particularly, the occurrence of exceptional rainfall due to global change are relevant; this gives opportunity to draw landslides hazards zonation map of the Bambouto caldera which is the main risk in this area. We evaluate the financial potential of the caldera base on the average income of breeding, farming, school fees and the cost of houses and equipments for each family. The method of calculation revealed that, the yearly economy of the mounts Bambouto caldera represents about 2 billions FCFA. Some recommendations have been made in order to prevent and reduced the potential losses and the number of victims in particular by better land use planning. These help us to estimate the importance of destruction of the environment and biodiversity in case of catastrophes. We conclude that in the Bambouto caldera there is moderate to high probability that destructive phenomena due to landslides occurs within the upcoming years with enormous financial and human losses.