« Cap-Haïtien » or « How to 'construct' a flood risk in a decade »

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ABSTRACT: — Cap-Haïtien is a town situated in northern Haiti that is experiencing an unprecedented increase in flooding. While some observers are tempted to blame the flooding to the consequences of climate change, we try here to demonstrate that it is the total lack of urban planning, environmental degradation, lack of good governance and rural exodus which are the main components creating this exceptional risk. The objectives of this paper are to analyze the evolution of urban expansion in two wetlands (Haut-du-Cap river and the mangroves in Petite-Anse) from 2004 to 2016 and to assess the perception of flood risk by local people. The urban expansion dynamics is analyzed using 23 images with very high spatial resolution available in open access on Google Earth since 2004 (as in CHOKPON et al., 2017; COMOE & OZER, 2017; OZER, 2014) and surveys were administered to 50 respondents living in newly parceled zones during a field mission in April 2016. Our results show that recent urban sprawl is mainly carried on embankments in the estuary of the Haut-du-Cap river or to the detriment of the mangrove. Consequently, these new residents are periodically flood victims. Questioned on the ground, it appears that 80% of these people are coming from rural exodus and have settled in Cap-Haïtien in the last decade. 82% and 60% of the people live respectively below the poverty line (< 2 USD / day) or in extreme poverty (<1 USD / day), and 42% are illiterate. Therefore, the ignorance of flood risk, poverty and low education levels are all parameters involved in the vulnerability of these new inhabitants. Thus, 78% of respondents claim to have been dramatically impacted by flooding at least three times since their arrival (i.e. since 2004). Field surveys revealed that most of the newly settled people in some areas highly exposed to the risk of flooding in Cap-Haïtien come from neighboring rural areas. Their movements are motivated by the aspiration of "a better life". However they were quickly disillusioned because the recurrent flooding plunge these populations in an aggravated state of insecurity. As for the authorities, they are guilty of not applying the national standards for construction in flood risk areas and the lack of regional planning policy endangers the survival of hundreds of households per year. In this case, it seems evident that the most frequent flooding is not due to climate change but rather that chaotic governance creates all conditions for the "construction" of the risk because of the inhabitability process.

REFERENCES

CHOKPON, A. E., DE LONGUEVILLE, F. & OZER, P. 2017. Risque d'inondation périphérie du Lac Nokoué (Cotonou, Bénin): effet du changement climatique ou problème d'aménagement du territoire? — Geo-Eco-Trop, 41: in press. COMOE, R. & OZER, P. 2017. Le déguerpissement en réponse au risque d'érosion côtière. Cas de la commune de Port-Bouët à Abidjan. — Geo-Eco-Trop, 41: in press.

OZER, P., 2014. Catastrophes naturelles et aménagement du territoire: de l'intérêt des images *Google Earth* dans les pays en développement. — *Geo-Eco-Trop*, **38**: 209-220.

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