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# Long term human-environment dynamics in a peri-forest context

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In Central Africa, population growth is increasing the demand for resources, leading to significant changes in forest ecosystems. Human activities like infrastructure development, road construction, and over-hunting threaten both vegetation and wildlife [1]. This anthropization of the natural landscape raises concerns about the ecosystem's sustainability and impacts food and health security for forest-dependent communities [2]. We present and study a dynamical system to model human-environment interactions. Based on the fact that the human population relies on food availability, provided either from domestic sources (agriculture, breeding) or from hunt, we assume that the interactions between human population and the environment are limited to hunting activities, which reflect what happens in South Cameroon [3]. The theoretical analysis of the model shows that different kind of dynamics are possible. We identify the conditions on the hunting rate under which humans and wild fauna can coexist, as well as how anthropization may affect those conditions.

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