

# Impacts of emerging infrastructure development on wildlife species and habitats in Tanzania

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## Abstract

The loss of wildlife species due to habitat deterioration and pollution represents the major threats to biodiversity conservation. This is compounded by the rapid development of infrastructure i.e., the expansion of roads, railways, harbours; construction of industries, human settlements and agricultural infrastructure. A few studies have explored the significant effects of emerging infrastructure development on wildlife species and habitats particularly in developing countries like Tanzania. We reviewed 58 research articles and reports, to highlight the significant impacts of emerging infrastructure on both aquatic and terrestrial species and habitats in Tanzania. We show that despite the role it plays to the development, the infrastructure contributes significantly to the loss of wildlife species. For instance, avoidance, habitat loss, edge effects incursion, population, isolation, road mortality, and increased human access are among the effects of highway across the Serengeti, Mikumi, and Katavi National parks in Tanzania. Effect of on health of aquatic species, pollution and loss of habitat have been pointed out as impacts due to construction of hotels and industries upstream and along the coasts, expansion of harbours and agricultural activities. Environment effects i.e., reduction of forest, ecosystem services, and riverine habitat, loss of species are anticipated due to the construction of Stiegler's Gorge Hydroelectric Dam, across the Rufiji River in eastern Tanzania. Though infrastructure development undoubtedly offers opportunities to boost economic growth and reduce poverty in developing nations, it should be planned to have the least possible negative effects on biodiversity. Well-planned infrastructure development could lessen human pressure on wildlife species and habitats. This paper would be useful to policymakers and politicians in developing nations to avoid implementing infrastructure in biodiversity-rich or protected areas as their decision may jeopardize the integrity of wildlife species and future generations.

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