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PARTICIPATIVE LAND-USE PLANNING FOR BONOBO CONSERVATION IN THE MARINGA-LOPORI-WAMBA LANDSCAPE, DEMOCRATIC REPUBLIC OF CONGO (DRC)

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The University of Maryland is working in joint partnership with the African Wildlife Foundation and other institutions to support land use planning in the Maringa-Lopori-Wamba (MLW) Landscape located in northern Democratic Republic of Congo (DRC). It is one of twelve Landscapes identified by the Congo Basin Forest Partnership (CBFP) as an area of high priority for conservation within the Congo Basin. It harbors many terrestrial mammals of great conservation importance, including the bonobo ape (*Pan paniscus*), listed as Endangered on the IUCN Red List of Endangered Species. This presentation will demonstrate the use of spatially-explicit datasets and models to guide a participatory planning process to conserve the bonobo ape and simultaneously maintain the livelihoods of local communities in the region. The results of this work will contribute to the DRC's land-use planning efforts for the future conservation and management of its forests, and simultaneously inform a future national bonobo conservation strategy.

The MLW landscape consists of a swath of land covering 74,000km² in the northern Democratic Republic of the Congo. While the yearly deforestation rate is still low (<0.1%) and most habitat destruction (mainly caused by slash and burn agriculture) occurs close to existing settled and cultivated areas, projections based on the current tendencies of land use change show further encroachment into forest blocks important for wildlife habitat and connectivity. Using a combination of spatially-explicit modeling and participatory approaches, we are working with local communities to identify areas best suited for inclusion in a proposed Rural Development Zone meant to constrain future agricultural expansion and simultaneously meet conservation objectives. This planning model considers a host of factors influencing future agricultural suitability including assumptions about future population growth and agricultural activity, the influence of existing agricultural areas, human accessibility, and locations of areas important for bonobos and general terrestrial biodiversity.

To realize this model, are engaging in participatory mapping with local communities to define agricultural boundaries at the village level and initiating quid-pro-quo support for sustainable livelihood development and agricultural intensification inside the proposed Rural Development Zone. Through participative land use planning and micro zoning, we hope to decrease deforestation and forest degradation in remote areas which are important for habitat and connectivity. This work will guide future zoning, planning, and natural resource management activities in the MLW Landscape and inform future strategies for bonobo conservation in DRC.