

RESILIENCE OF TROPICAL ECOSYSTEMS – FUTURE CHALLENGES AND OPPORTUNITIES

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MODELS OF CHANGE ACROSS THE FOREST TRANSITION CURVE - PARTICIPATORY MODELLING IN THE CONGO BASIN

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The futures of tropical forest landscapes are shaped by the land use and climate change. Increased demand for agricultural products, wood and fibers, the aspirations of rural and forest dwelling communities and a growing recognition of planetary boundaries outline the complex trade-offs resource users face every day. How can we imagine landscape trajectories that will accommodate these apparently conflicting demands?

The project CoForTips explores this question through the development of participatory models of change. These models describe the interactions and process that link ecosystems, actors and norms. The models are then used to run simulations – describing changes to the social and natural components under different scenarios. One of the particularities of this approach is that we use role playing games, allowing real stakeholders to bring in their own strategies, beliefs and intentions.

We launched parallel participatory modelling processes in three sites distributed across the forest transition curve: 2 in Cameroun (Guéfigué, Central Region and Mindourou, Eastern region) and 1 in Gabon (Makokou, Province of Ogooué-Ivindo).

In Makokou, the participatory modelling process highlighted the critical role that elephants and their forays into the village fields play in the strategies of land use by the farmers.

In Mindourou, the models focused on the decrease in forest cover of the community forests as a result of the expansion of cultivated areas by migrants around small urban centers, leading to tensions between locals, migrants and the forest logging companies that brought the migrants to the area.

In Guéfigué, at the far end of the forest transition curve, the local community highlighted the critical role played by the cocoa and other cash crop supply chains. They helped to initiate a dialogue on the local options for agricultural development.

All these processes have started a dialogue between local stakeholders and academics that will continue through 2015 to create common mental models of the forest landscapes of the Congo Basin.