# Multi-scale assessment of ecological corridors core-matrix-barrier systems for wildlife populations connectivity

In recent years, there is increasing recognition of the importance of corridors and passages for wildlife habitat connectivity, globally, as well as nationally. There is growing consideration of corridors and passages in planning processes at national and regional levels. However, there is a substantial knowledge gap regarding the efficiency of corridors in maintaining terrestrial habitat connectivity among target species populations. We propose to assess the corridor and passage efficiency, and to evaluate the implications of compromising the integrity of corridors put forward by the NPA. A majority of the corridors consist of a mosaic of natural and agricultural land uses, imposing variable conditions within corridors. We suggest to examine that using a combined approach, including monitoring the activity of target wildlife species in corridors in general and around passages in particular. In addition, we intend to conduct genetic analyses of populations of target wildlife species in natural habitats along the corridors to estimate the isolation levels among populations. Furthermore, we will evaluate the effects of the composition of land-uses within the corridors (e.g., agricultural practices, development level, proximity to existing or planned disturbances) on corridor and passage functioning. A combined analysis of all the above will allow us to provide detailed recommendations on planning the land-use composition within corridors in an optimal way, which will reduce negative impacts on both wildlife and stakeholders.