

The economics of animal trypanosomosis control under climate change

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Background



WASCAL

West African Science Service
Center on Climate Change and
Adapted Land Use

Background

The
Economist

The tsetse fly and development In the ointment

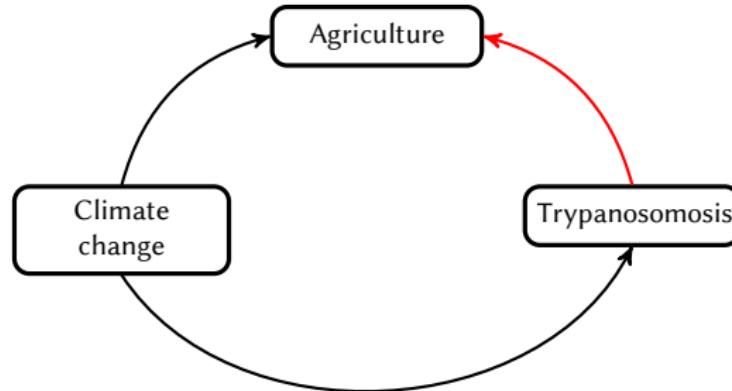
How an insect held back a continent

WASCAL

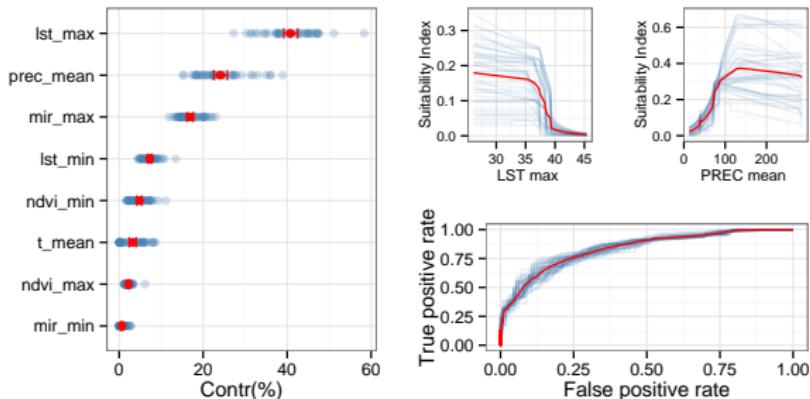
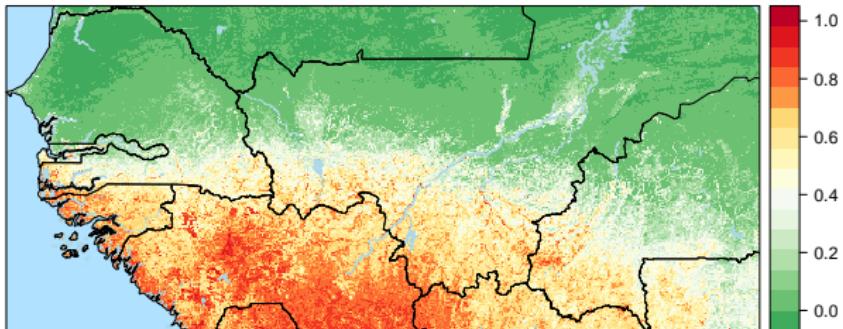
West African Science Service
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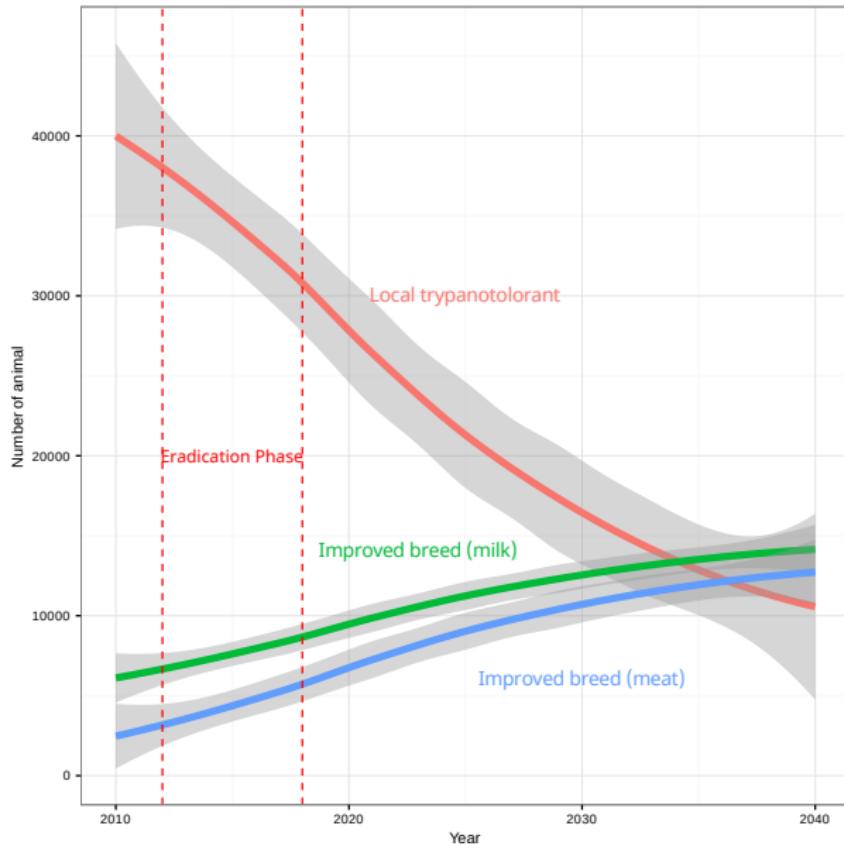
Climate change and African animal trypanosomosis (AAT)



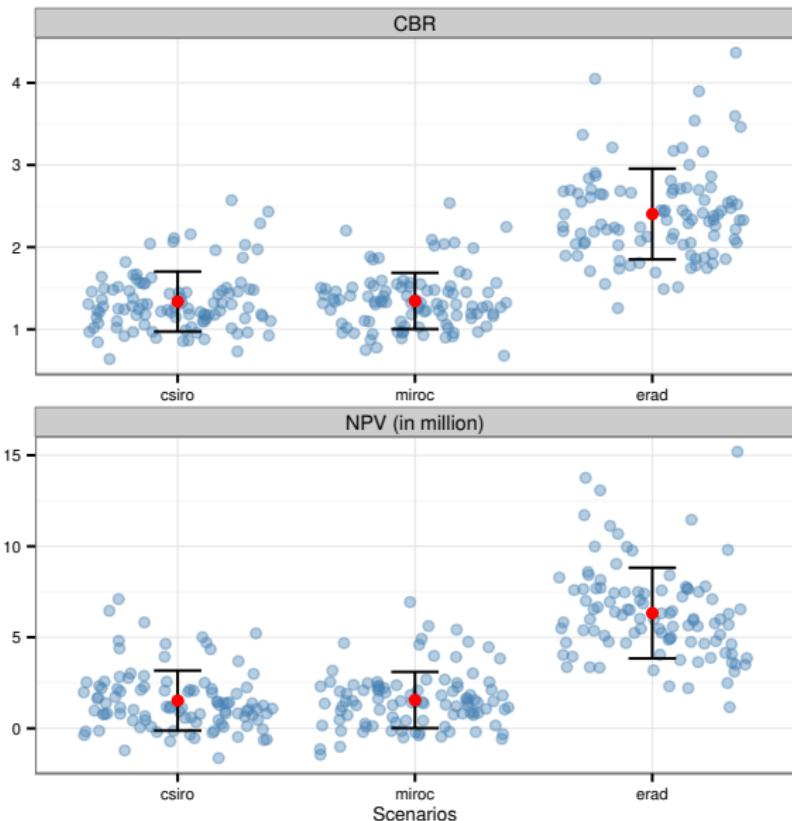
Modeling the risk of AAT in West Africa



Evolution of livestock system



Economics impact of AAT control



Conclusion

- The risk analysis developed during the thesis already in use at the African Union
- Our research highlighted that eradicating tsetse fly will:
 - ▶ be less profitable where climate is expected to be dryer
 - ▶ help mitigating climate change
- Tsetse also transmit sleeping sickness which remains an important public health problem in sub-saharan Africa
- Advocate for the use of **climate fund for AAT eradication campaign in Africa**



References

- Alsan, Marcella (2015). "The Effect of the Tsetse Fly on African Development". In: *American Economic Review* 105.1 (2015), pp. 382–410. DOI: [10.1257/aer.20130604](https://doi.org/10.1257/aer.20130604). URL: <http://www.aeaweb.org/articles.php?doi=10.1257/aer.20130604>.
- Dicko, Ahmadou H, Renaud Lancelot, et al. (2014). "Using species distribution models to optimize vector control in the framework of the tsetse eradication campaign in Senegal". In: *Proceedings of the National Academy of Sciences* 111.28 (2014), pp. 10149–10154.
- Dicko, Ahmadou H, Lassane Percomat, et al. (2015). "A Spatio-temporal Model of African Animal Trypanosomosis Risk". In: *PLoS Negl Trop Dis* 9.7 (2015), e0003921.