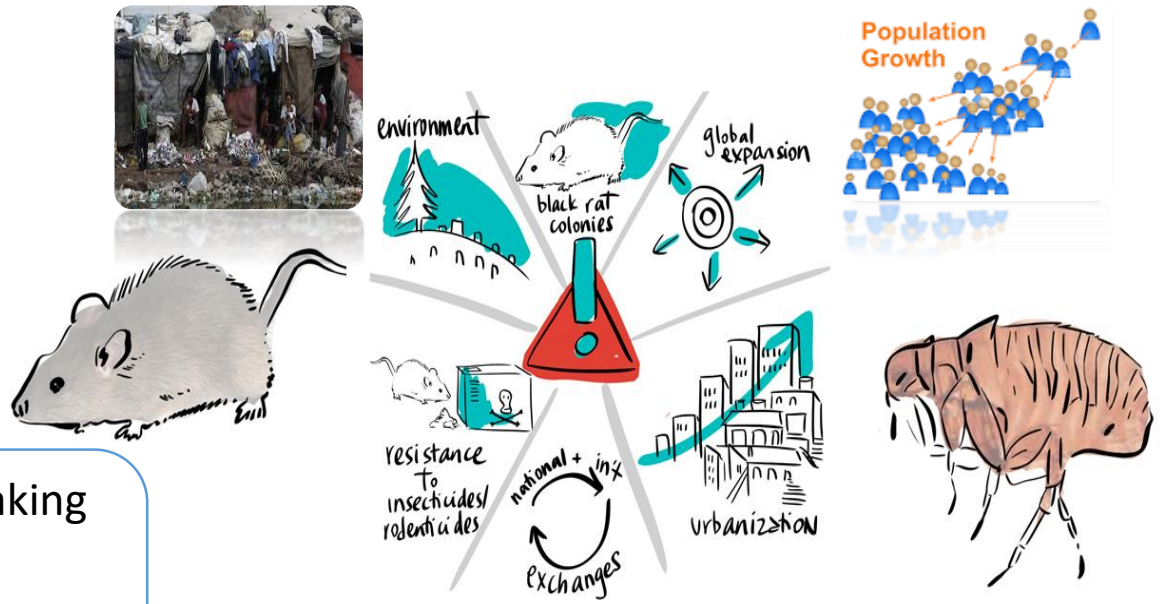
CONTINUOUS MONITORING OF MURINE AND FLEA POPULATIONS IN MADAGASCAR URBAN AREAS: the case of the city of Antananarivo

Background:

Plague: *Yersinia pestis*-Reservoir-Flea Triad

- Infection of rodents transmitted to humans by the bite of infected fleas
- Introduced to Madagascar in 1898 and endemic in the central highlands, interrelated in two epidemiologic cycles: the **rural** and **the urban**



Aim of the study: To provide plague risk indicators for decision-making and adaptation of plague control measures in urban areas.

- Monitor the population density variation of host reservoirs, flea vectors, flea indices
- Assess the susceptibility of flea vectors to insecticides

Methods:

- Sampling of rodents and their fleas in 6 markets of Antananarivo in 2021, during high transmission season(March-October) and low transmission season(August-September)
- Determining entomological mammalogical indicators (cheopis index, global flea index, rodents species density, flea species density and infestation rate, *Y. pestis* prevalence in rodents)
- Testing of flea sensibility to insecticides used for control.

how about the risk of plague outbreak in urban areas??