

INTRODUCTION

- ❑ Challenge: availability and quality of water;
- ❑ Environmental changes are modifying how contaminants behave on the environment;
- ❑ **Drugs** → adverse effects on biota and humans.

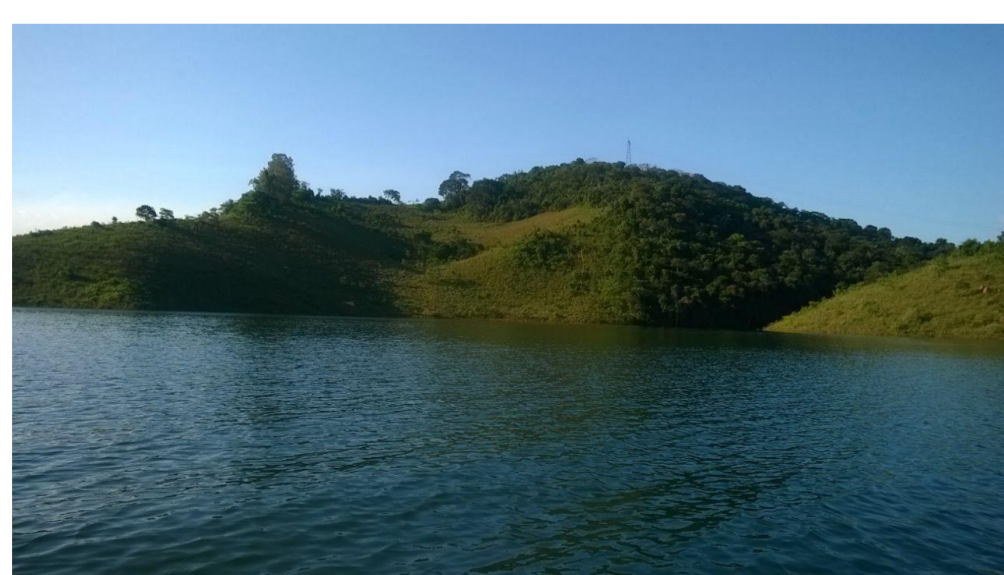
- ✓ How much are in human supply reservoirs?
- ✓ What are their ecotoxicological effects?
- ✓ How climate change can influence the behavior of drugs on the environment?

GOAL

Investigate the presence and ecotoxicological consequences of drugs in Brazilian aquatic ecosystems.

MATERIAL AND METHODS

Study Sites: environmental samples from reservoirs



Chapéu D'Uvas (MG)



Funil (RJ)

Experimentation: biogeochemistry and ecotoxicological effects:



Allium cepa seeds



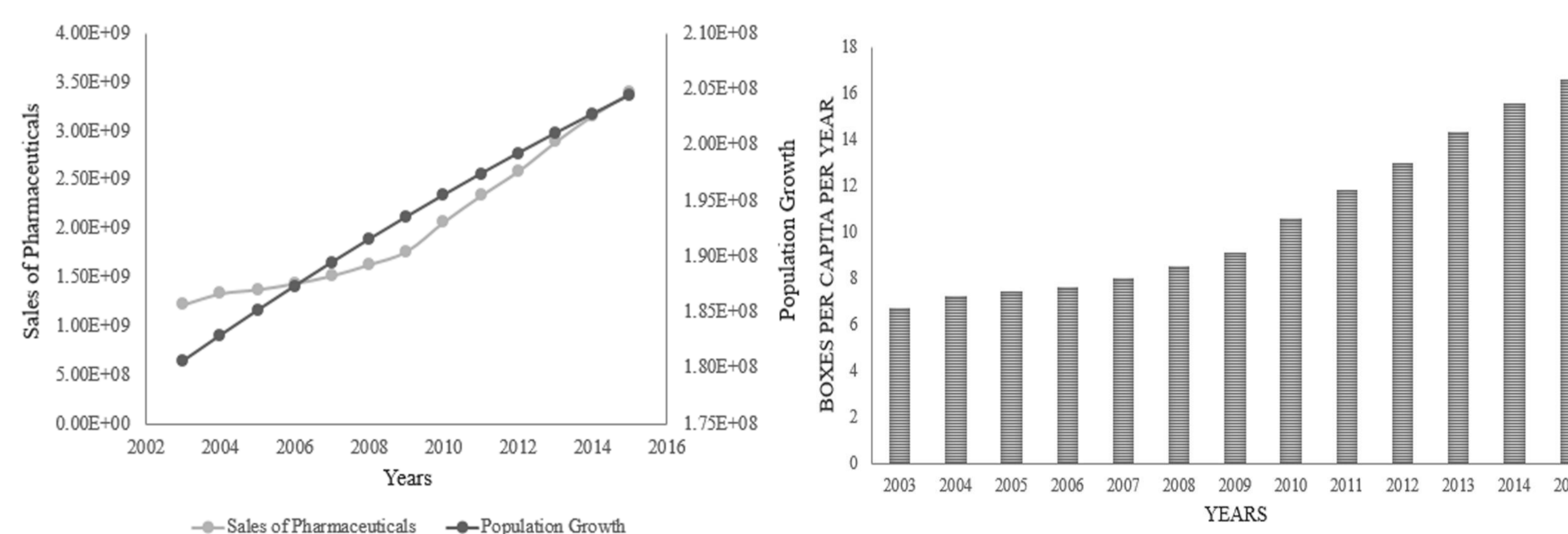
Drought experiment

EXPECTATIONS

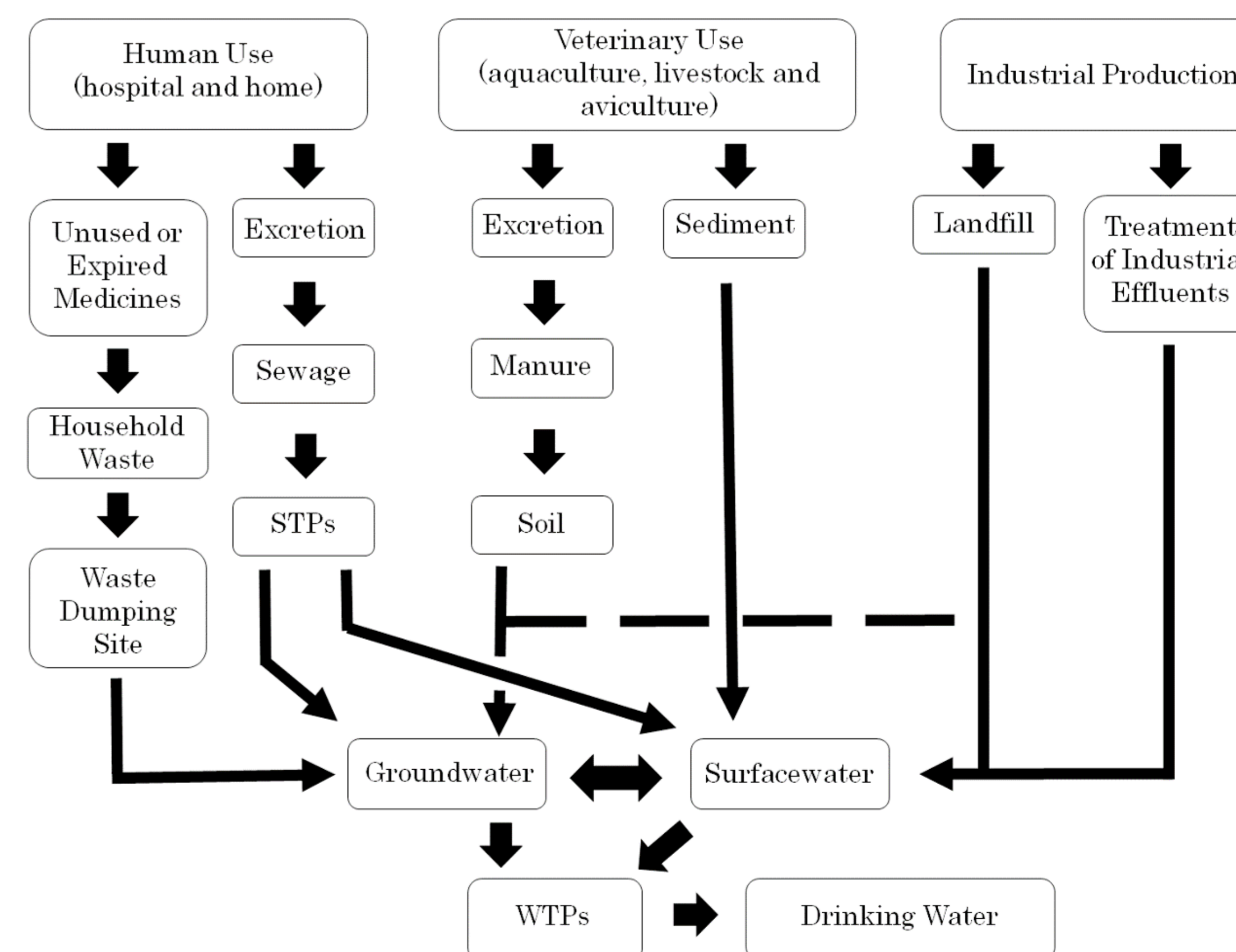
- ❑ New knowledge: concentrations, ecotoxicological effects, and behavior in the environment
- ❑ Elaboration of guidelines for control in the environment.

SOME DATA...

Sales of pharmaceuticals and population growth



Pathways of pharmaceuticals in the environment



Substance	Concentration	Place	Reference
Caffeine	357 mg L ⁻¹	Leopoldina Basin (RJ)	Ferreira (2005)
17β-estradiol	6 mg L ⁻¹		
17α-ethinylestradiol	3.5 mg L ⁻¹	Ribeirão Anhumas (SP)	Ghiselli (2006)