

REDE GLOBAL DE SOLUÇÕES SUSTENTÁVEIS EM ÁGUA E ENERGIA

Webinar: O papel-chave da biodiversidade no apoio a soluções sustentáveis em água e energia, ecossistemas e enfrentamento das mudanças climáticas

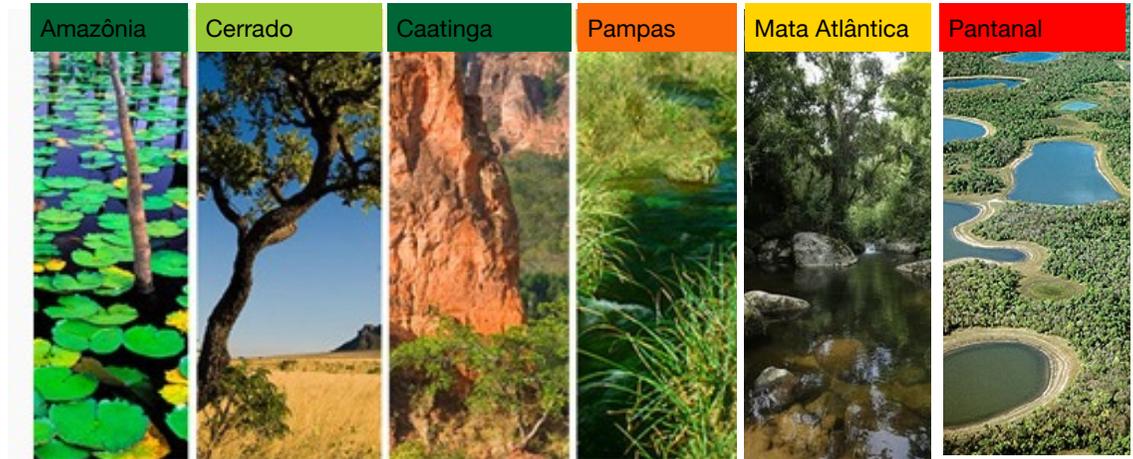
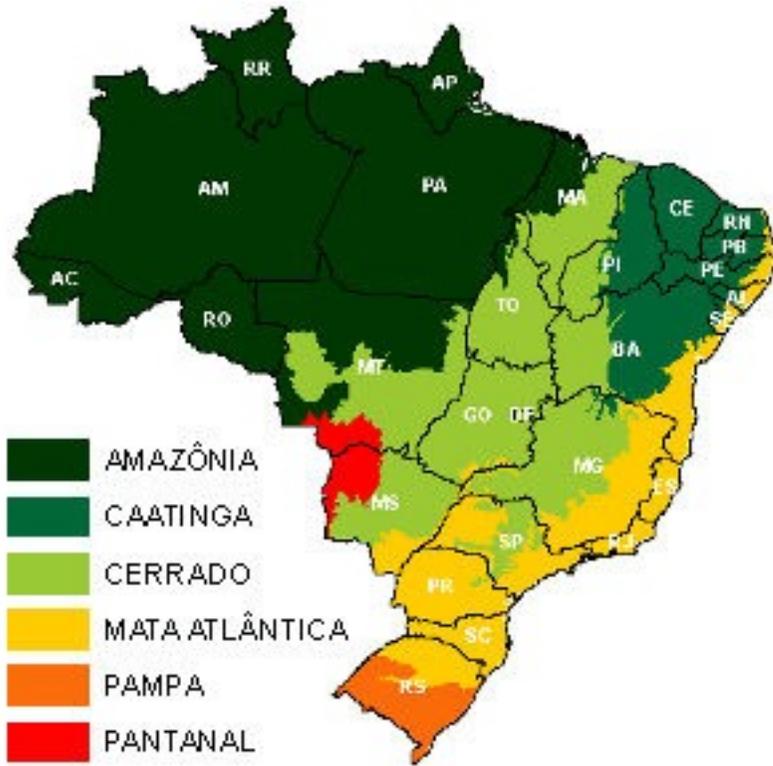
The importance of biodiversity conservation and climate action for the hydropower sector in Brazil

*Ariel Scheffer da Silva
ITAIPU Binacional*



The climate and the ecosystems in Brazil

6 large terrestrial biomes



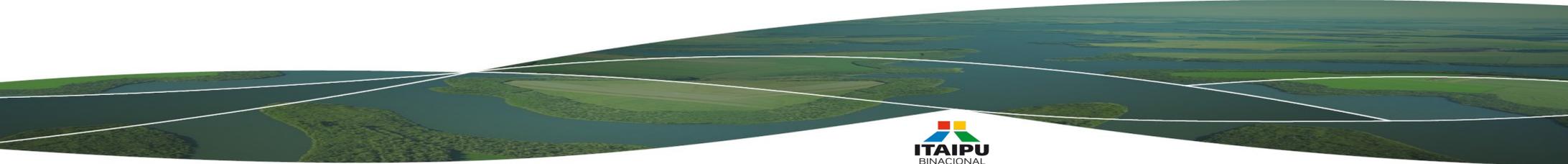
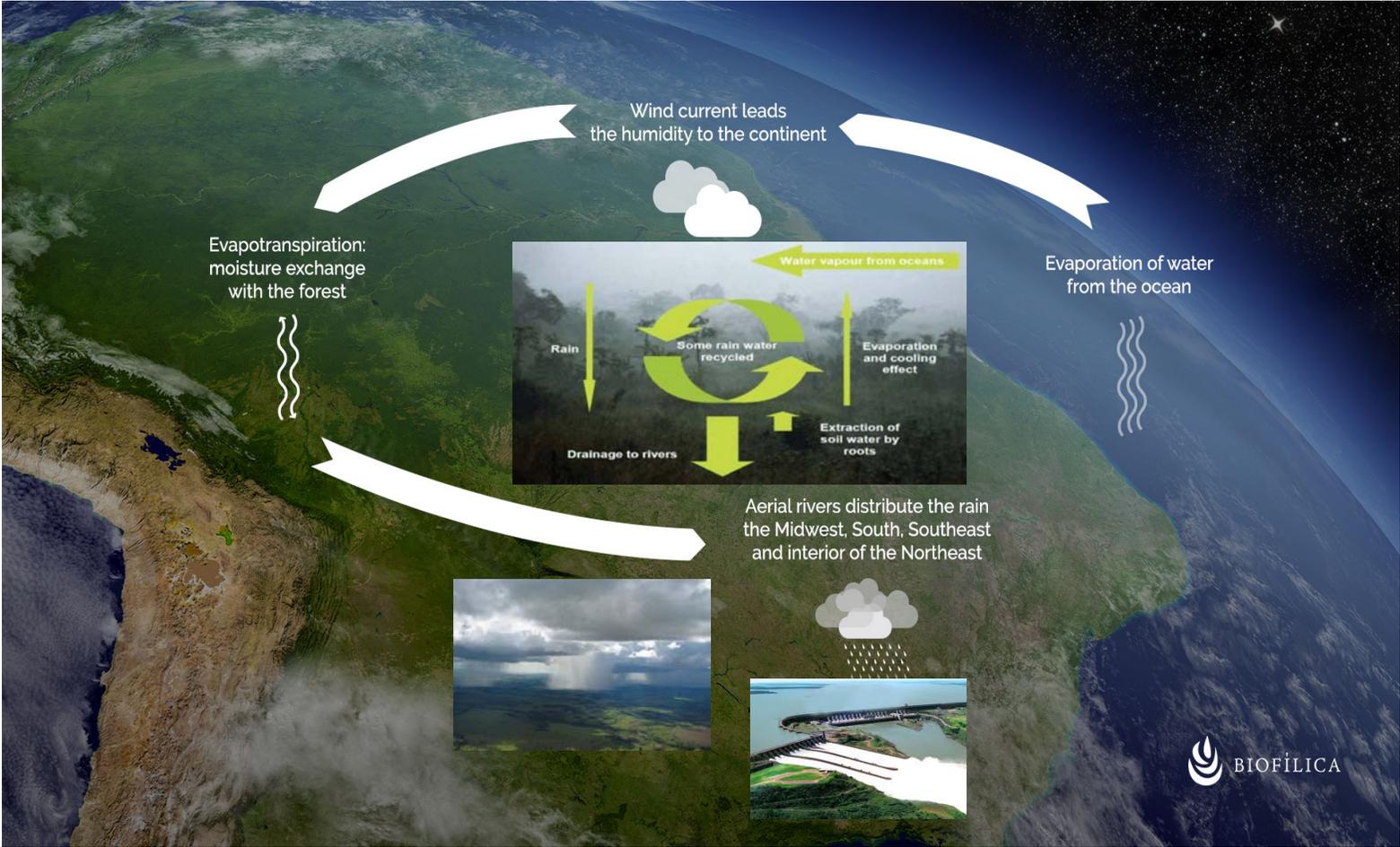
119.389 fauna species

49.217 flora species

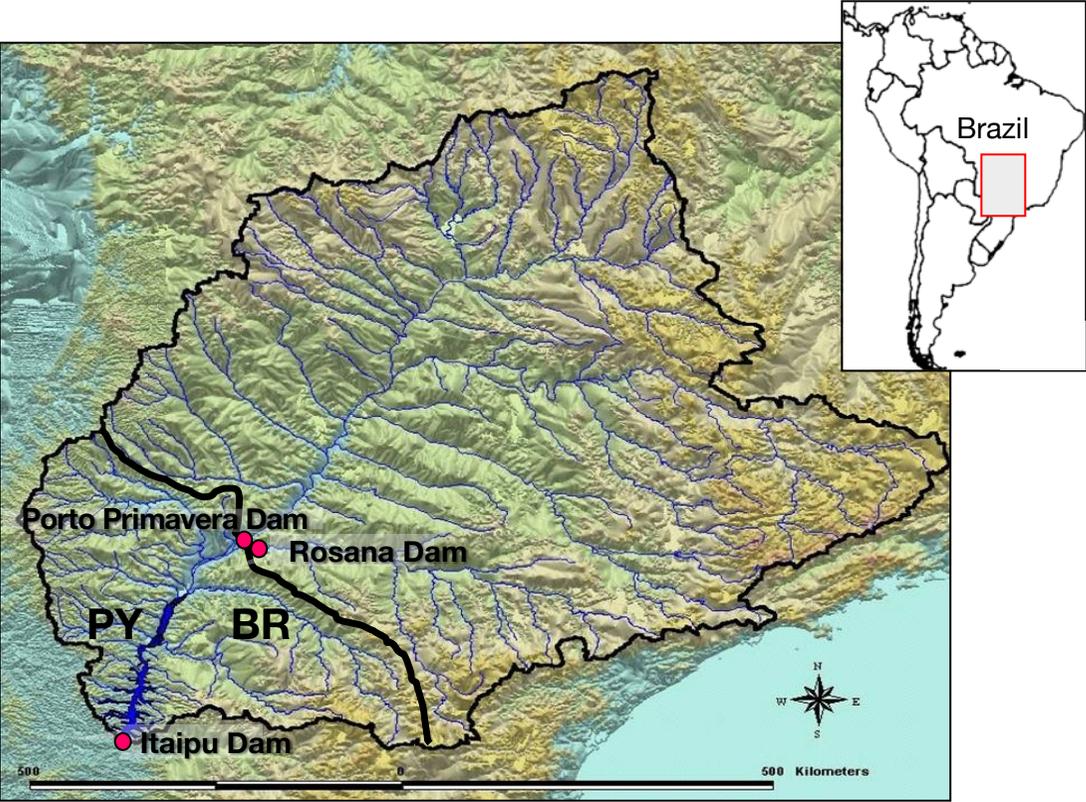
5 main climate patterns



The climate, ecosystems and hydropower



The climate, ecosystems and hydropower



Parana River

835.398 km² (10% of Brazilian territorial surface) = ~ France + Italy

57 medium and large reservoirs/dams in the in the river basin

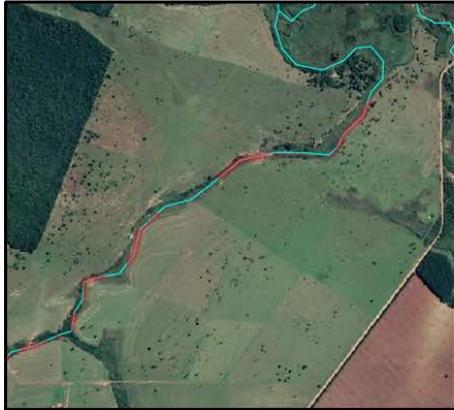
ITAIPU Reservoir influence area

160.767 km² of direct drainage area

240 municipalities in the direct drainage area

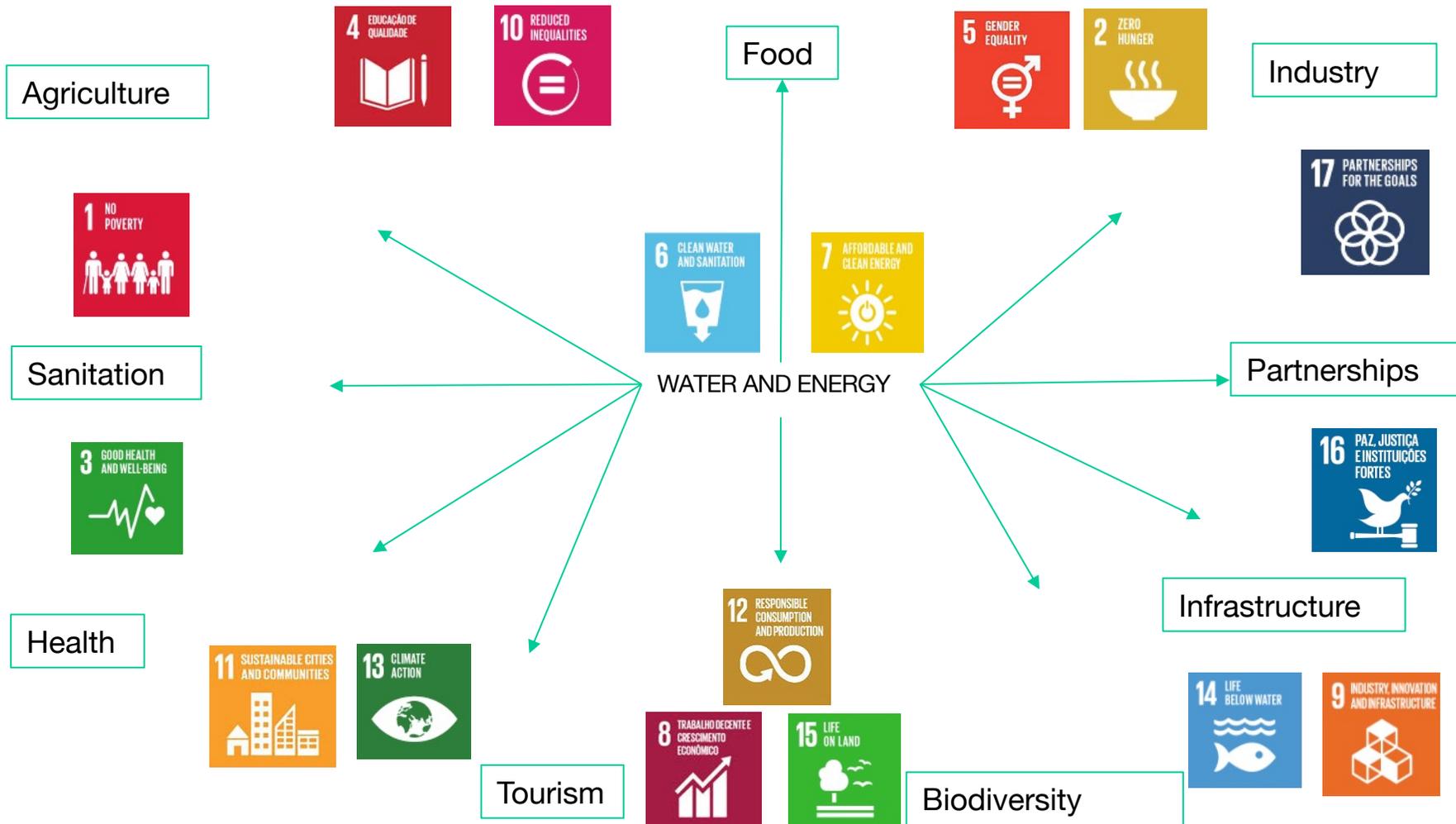
184 years - Itaipu reservoir life span

Consequences of ecosystem and biodiversity



9 - 12 million tonnes of sediment retention/year (sediment balance)

Our strategy – territorial environmental management



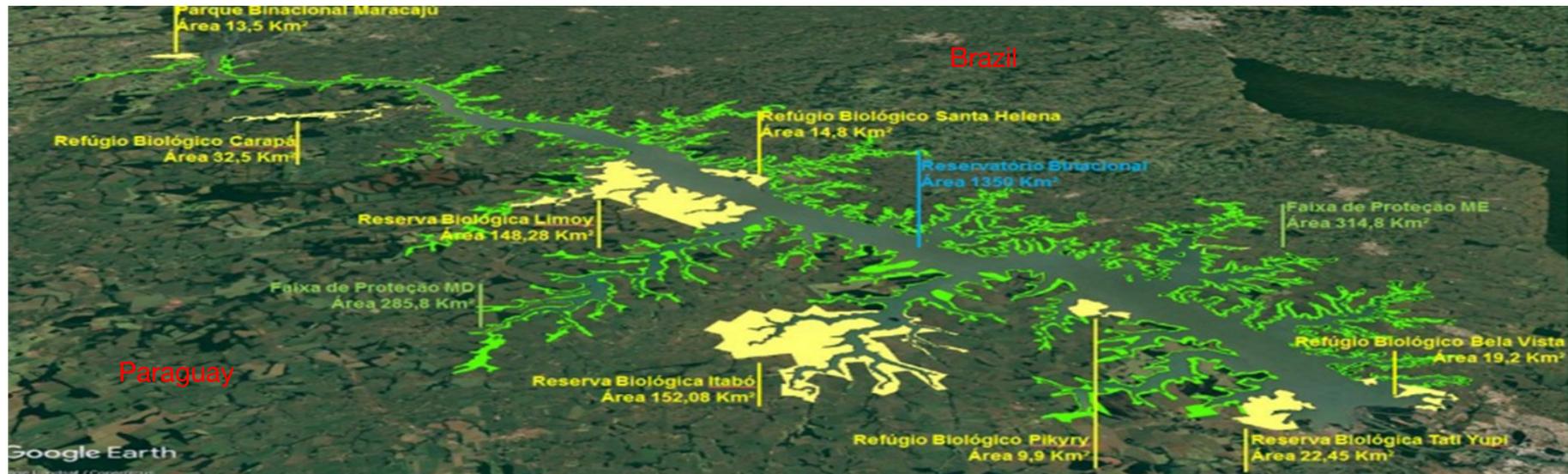
Resilience and adaptation action through conservation

101.000 hectares of protected areas

24 million trees planted - native species

restoration project

ITAIPU forest lands as core areas of Atlantic Forest Biosphere Reserve - UNESCO Man and Biosphere Program



Biodiversity Conservation



Biodiversity Conservation

72 species of native fauna - breeding and rewilding programs (*ex situ* and *in situ* conservation)



Biodiversity conservation and climate action is good for business

- **Increases water and energy security;**
- **Green infrastructure or Nature-based Solutions (NbS) are cheaper and more effective than grey solutions;**
- **Investments and long term commitment with nature conservation increases social license to operate (SLO) and brand value;**
- **Nature-based Solutions (NbS) decrease climate - extreme weather risks for hydropower generation.**



Thank you