## ALTO TIETÊ SUBCOMMITTEES

Due to the complexity and diversity of the Alto Tietê Watershed, it is divided into five distinct regions, each comprising specific municipalities, as follows:

**ALTO TIETÊ - CABECEIRAS**
Mogi das Cruzes; Salesópolis; Biritiba Mirim; Suzano; Poá; Ferraz de Vasconcelos; Itaquaquecetuba; Guararema.

**BILLINGS - TAMANDUATEI**
São Paulo; Santo André; São Bernardo do Campo; Diadema; São Caetano do Sul; Mauá; Ribeirão Pires; Rio Grande da Serra.

**COTIA - GUARAPIRANGA**
São Paulo; Cotia; Embu das Artes; Embu-Guaçu; Itapecerica da Serra; Juquitiba; Taboão da Serra; Vargem Grande Paulista.

**JUQUERI - CANTAREIRA**
Caieiras; Cajamar; Franco da Rocha; Mairiporã; São Paulo.

**PINHEIROS - PIRAPORA**
São Paulo; Osasco; Barueri; Santana de Parnaíba; Pirapora do Bom Jesus; Carapicuíba; Jandira; Itapevi; Taboão da Serra.

The capacity building was guided by principles such as Nature-Based Solutions (NbS) and Ecosystem-Based Adaptation (EbA), emphasizing ecosystem protection and restoration as responses to climate impacts. In addition, the co-creation, which includes the engagement of local communities in solution development, and the regenerative design, focused on restoring and revitalizing ecological systems, were the main guidelines of the capacity building. These principles supported a holistic and inclusive approach to addressing social and environmental challenges in the Alto Tietê Watershed.

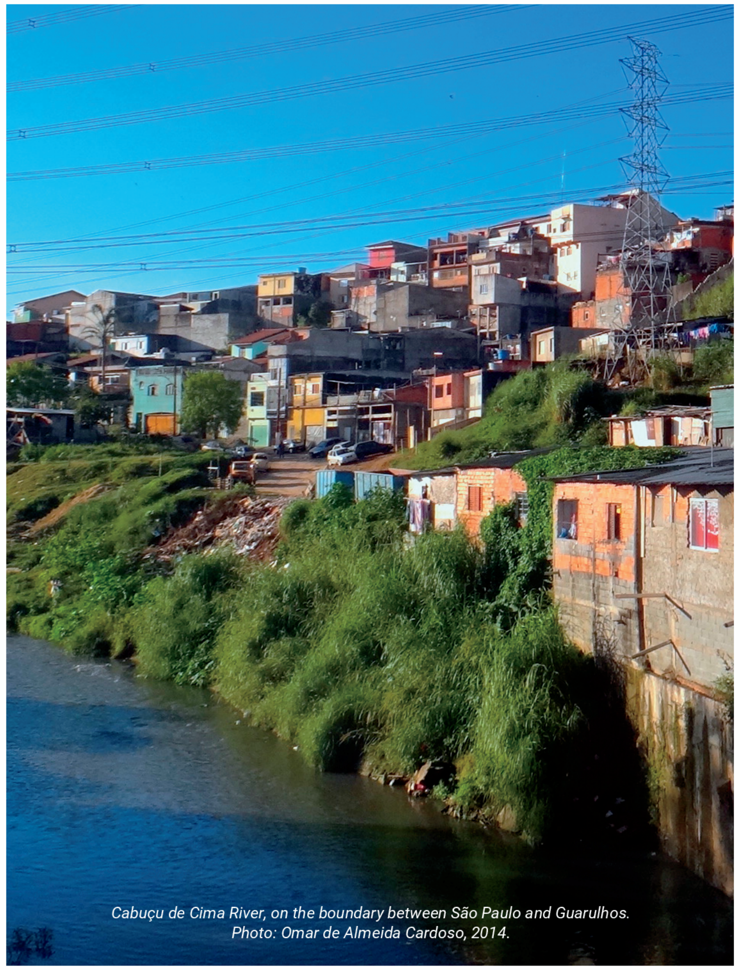
## THE ROLE OF CETESB

Since 1995, CETESB has supported the implementation of commitments arising from international agreements under the United Nations Framework Convention on Climate Change (UNFCCC) (BRASIL, 1998), coordinating state programs and enforcing the State Climate Change Policy (PEMC) (SÃO PAULO, 2009).

During this period, CETESB has also conducted numerous courses and capacity building sessions on climate change and related topics for both external and internal audiences. More recently, following the release of the latest IPCC reports, which provided more effective and viable approaches to climate adaptation, CETESB has intensified its focus on adaptation, emphasizing the feasibility, effectiveness, and potential co-benefits of adaptation measures for public health, the economy, and the environment.

**Project's webpage:**

CETESB - Environmental Company of the State of São Paulo
AS - Sustainability Department
ASM - Climate Change Division
https://cetesb.sp.gov.br/adaptacao-as-mudancas-climaticas



*Cabuçu de Cima River, on the boundary between São Paulo and Guarulhos. Photo: Omar de Almeida Cardoso, 2014.*

**CLIMATE CHANGE ADAPTATION CAPACITY BUILDING IN THE ALTO TIETE WATERSHED**
**Government of the State of São Paulo**

**CETESB - Environmental Company of the State of São Paulo**
**São Paulo, 2024**

## CLIMATE CHANGE ADAPTATION CAPACITY BUILDING IN THE ALTO TIETÊ WATERSHED (CBH-AT)

The technical capacity building for identifying vulnerabilities and proposing adaptive measures was designed to address the critical need for a comprehensive approach about adaptation. This capacity building program emphasized not only the study of vulnerabilities and the development of policies and strategies to advance knowledge and learning, but also prepared municipalities and regions to identify and mitigate risks effectively. By doing so, it contributed to the proper planning and implementation of adaptive measures at both local and regional levels. Public agents and civil society members from 40 municipalities participated in the capacity building.

**CLIMATE RISKS IN THE ALTO TIETÊ WATERSHED**
The São Paulo Metropolitan Region is characterized by a large and continuous urban sprawl within the Alto Tietê Watershed. It extends from the São Paulo Sedimentary Basin (in flood plains) to surrounding hills and mountains. With 20.7 million inhabitants, this densely populated area faces significant climate risks, including numerous flood-prone areas, landslides, heat island effects affecting entire neighborhoods, and water-related diseases like dengue. The region also has a recent history of water scarcity and risk of distribution collapse during 2014-2015, which stressed the entire water supply system and highlighted its vulnerability.

# CLIMATE RISKS - ADAPTATION MEASURES

**WORKING GROUPS**

**Objectives of the supported projects:**

WG1 Implement climate adaptation and mitigation actions to enhance the Transguarulhense linear park project and surroundings.

WG2 Implement green and grey infrastructures and adaptation and recovery measures for flood-prone areas to reduce peak flow and the flood area along the basin.

WG3 Establish strategies and guidelines to promote resilience among local communities, to reduce vulnerability, and to promote sustainable and equitable development of the municipalities within the sub-basin.

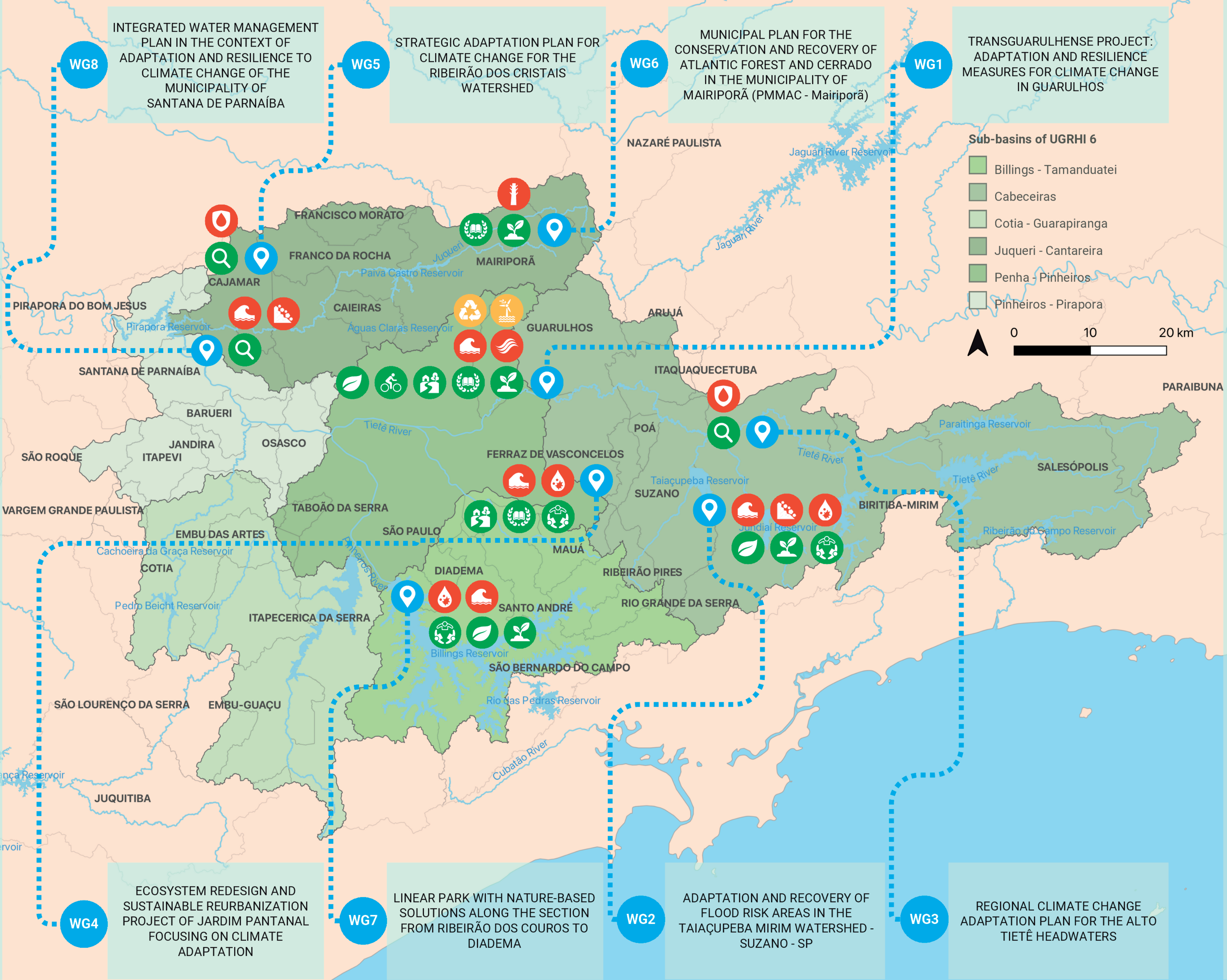
WG4 Through a holistic and integrated approach, promoting urban and social vulnerability reduction by positive transformations in the neighborhood, aligning urban development with sustainability and social justice principles.

WG5 Adopt climate mitigation and adaptation measures to ensure water security and preserve Ribeirão dos Cristais.

WG6 Promote climate change adaptation actions that prioritize the conservation and expansion of these biomes as a guiding element in addressing climate effects in the municipality.

WG7 Create a linear park around Ribeirão dos Couros creek, reducing local vulnerability to downstream flood events.

WG8 Implement structural and non-structural control measures, prioritizing Nature-Based Solutions (NbS), promoting harmonious and functional integration of buildings and urbanized land with the municipal drainage system.




**Risks**

- Floods
- Landslides
- Heatwaves
- Waterborne Diseases
- Water Security
- Ecosystem Degradation

**Adaptation Measures**

- Green Infrastructure
- Sustainable Mobility
- Adaptable Urban Design
- Environmental Education
- Ecosystem Restoration
- Climate Lens
- Participatory Management

**Mitigation Measures**

- Renewable Energy
- Waste Management


*Map created using shapefiles available on the website of the Alto Tietê Watershed Committee (CBH-AT). Available at: datagea.ambiente.sp.gov.br.*