

# BRAZIL AMAZON CITY OF MANAUS



#### FLOOD RIO NEGRO



2014 level of the river 29,50m



2009 level of the river 29,77m



2012 level of the river 29,97m

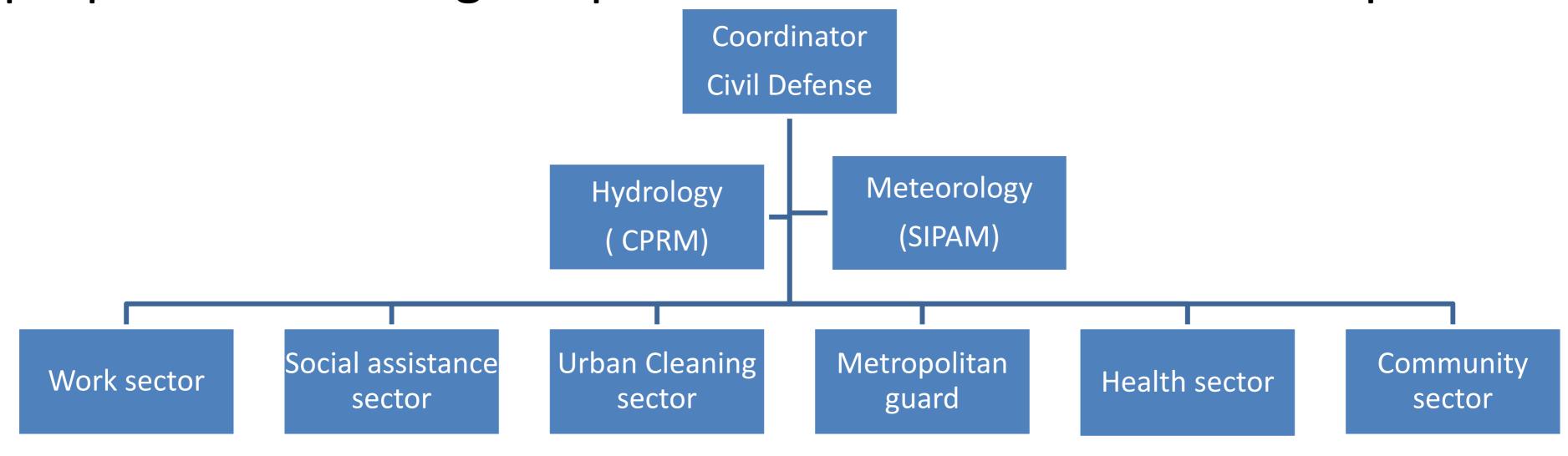


1953 level of the river 29,69m

OPERATING OFFICER: CLÁUDIO BELÉM

### Institutional setting

• The National Policy for the Protection and Civil Defense N°. 12.608 was published in the Official Gazette N°. 70 of 11 April 2012 and indicates that the management of risks and disasters should be focused on prevention, mitigation, preparedness, response and recovery and other sectorial policies, with the purpose of ensuring the promotion of sustainable development.



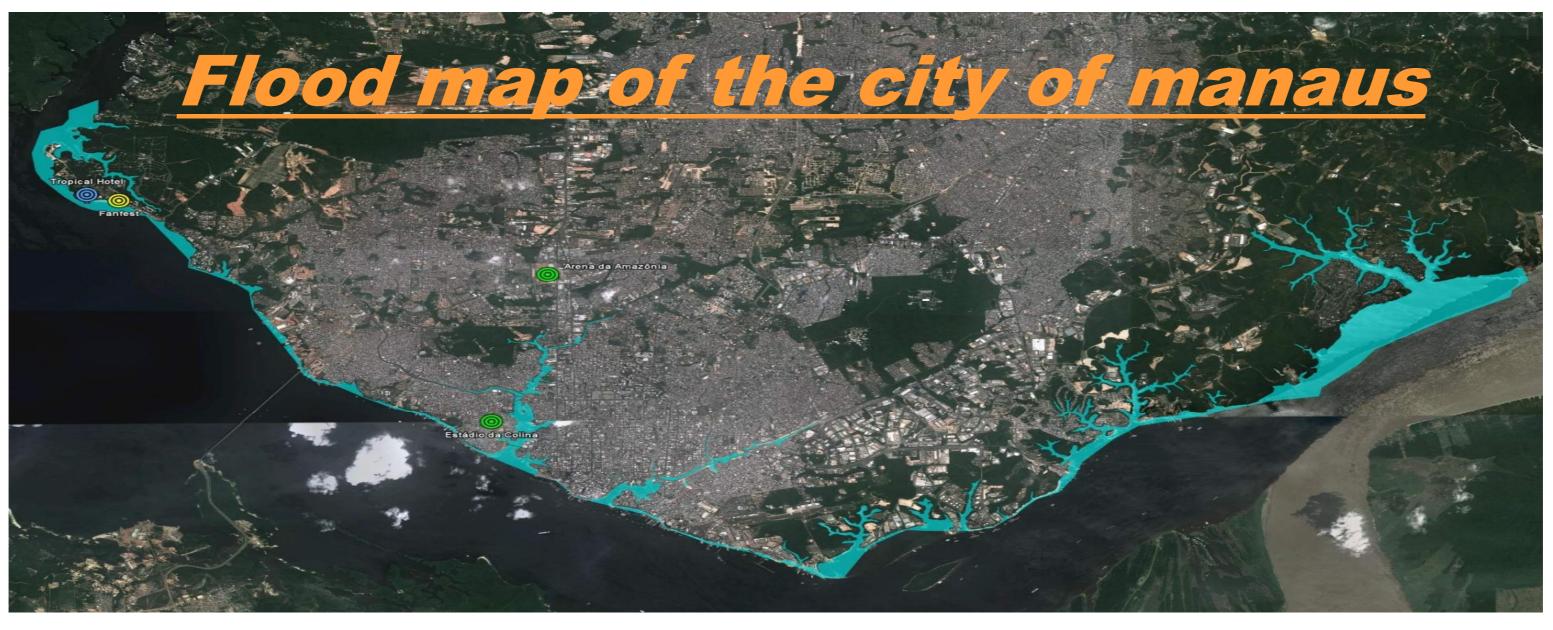
### Starting point

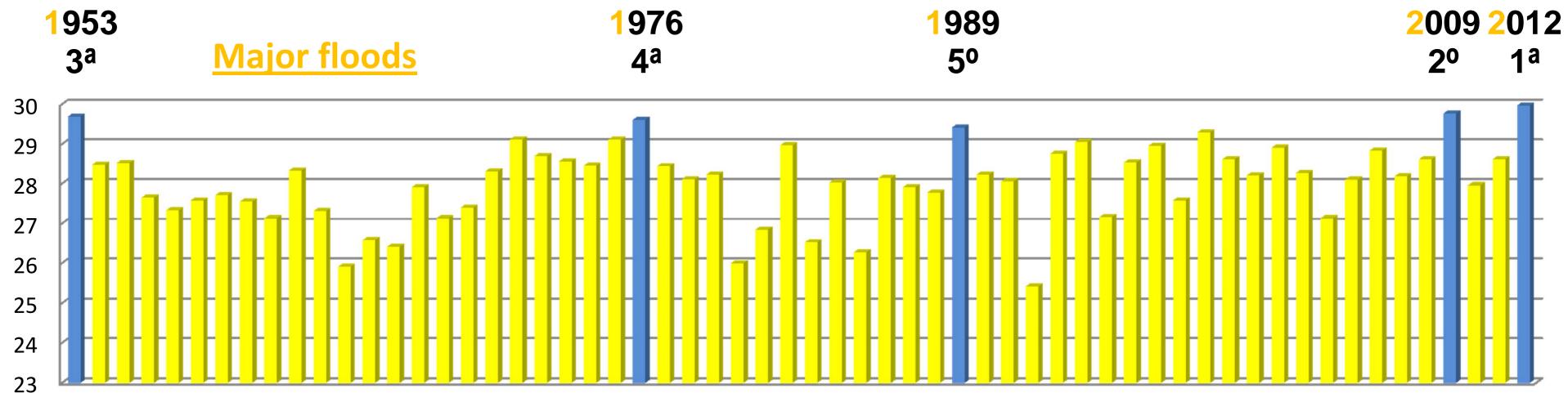
- Main seasonal flood challenge
- The main challenge was the integration between the different sectors of the Manaus City Council to act together to support the communities affected by flooding
- Obtain funds to develop the humanitarian actions and to assist communities affected by the flood.





## Approach





#### Outputs

- Funds acquisition in emergency case river level above 29 meters.
- Distribution of food
- Distribution of medicaments
- Construction of wooden bridges to remove the residents from the flooded areas.
- Shelters for the affected families
- Urban Development Program and Manaus Environmental Inclusion for action in flood areas.
- Create a disaster fund to guarantee the sustainability of the practice.

#### Lessons learnt

 Integration of urban planning, urban development, health, environment, climate change, water management, geology, infrastructure, education, science and technology and other sectorial policies, with the goal to promote sustainable development.







### Open questions

#### • CLIMATE CHANGE:

The projections for future climate indicate dynamic processes occurring in the atmosphere, so that the various phenomena may occur with greater frequency and intensity. Amazon in the events that had rounds of 10, 15, 20 and even 50 years are happening in consecutive years in case of flooding of the Rio Negro.

- Which resources are used to respond to the disaster?
- Which departments (municipal, state, federal) are called to act to respond to a disaster?
- How assertive the hydrological registers can be to prevent the disaster?
- Is there a program to remove the inhabitants from flood-affected areas?