

URBAN FUTURE SCENARIOS UNDER CLIMATE CHANGE

RIO 2050

Atmospheric Pollution

Rio 2050

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RIO 2050 IN A NUTSHELL

The beginning of our scenario starts in 2035 when the Trade War between the United States and China intensifies. Driven by greed and the desire to expand Chinese trade, China invests vigorously in navigation and satellite, resulting in advances in space research. Watching the success of Chinese research, the US also directed its research into space, trying to colonize Mars. This, however, brought serious consequences: the fossil fuels burned in the launch of countless research rockets release very polluting and harmful gases into the atmosphere, which, in the long run, made oxygen extremely toxic and almost impossible to breathe.

The consequences of the greenhouse effect worsened, favoring an increase in temperature and heat, thus triggering rains that were intensifying their acidity and excessive frequency over the years, creating what it's now called the "super-acid rains".

Between the years 2038 and 2042 there were about 100 thousand deaths per year by "air pollution" in Rio de Janeiro.

Now, in 2050 in Rio, people are required to wear gas masks when they are outdoors for their protection. The seas are polluted by super-acid rains and their fish are, if not killed, then contaminated. This in turn makes them prohibited for consumption. Fossil fuel-based vehicles are prohibited due to the amount of pollutants they release and, therefore, the government invests in a reform in the electric rail transport lines, now, there are Metro and VLT lines in practically all the neighborhoods of Rio de Janeiro. The dwellings are fenced and have purification filters that allow free breathing when indoors. To preserve and revive agricultural soil (destroyed by super-acid rains), sealed domes were created on the main agricultural soils in Brazil (south and southeast), with purification filters and artificial sunlight.



NEWS

Scientists have succeeded in planting extinct plant species in greenhouses

Four species of plants extinct for 3 years have been recovered.

1h | Agriculture



► 'If we are successful, some foods will return to people's tables'

- See how many foods were replaced by wheat flour
- How the Brazilian economy can benefit from this again



Mark Zuckerberg's Legacy

Video recalls the trajectory of the entrepreneur.

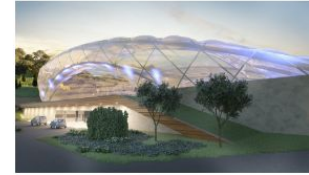


Gas mask accessories are the new trend

Manual decoration of masks



[Air-conditioned housing project is carried out in communities](#)



Mayor of Rio inaugurates new air-conditioned parks

The US basketball player is being held in a remote jail 500km (310 miles) south-east of Moscow.

6h | Rio de Janeiro



Climatepo becomes the most downloaded application in the world

Since the severe acid rains, it has become essential to check the weather at all times.

2h | Tech

Ludmilla wins her 15th Grammy

1h | Entertainment & Arts

Health surveillance fines mall for air filter irregularities

3h | Mato Grosso do Sul | 📰

VLT cancels services for today because of Big Smoke

5h | Rio de Janeiro

Student performance in ENEM is the worst in 10 years

7h | Education

Education

School dropout is a result of the high cost of transport fees

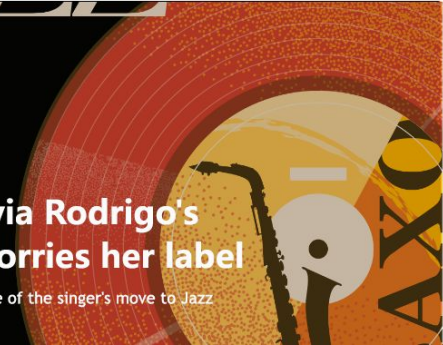
- Students from lower social classes have difficulty maintaining their school routine

Public Health



Mayor of Rio de Janeiro suspends free distribution of gas masks due to lack of funds.

Music



Failure of Olivia Rodrigo's new album worries her label

Apparently fans didn't approve of the singer's move to Jazz

**Livia Crumial**

2h ago •

I lost my brother on January 14, 2048, the day that some public hospitals in the city collapsed due to lack of oxygen. Matias was a man full of life who loved his two children and wife. A career civil servant at ANVISA, he was accomplished and planning his master's degree. He loved life and it was taken from him by a small mistake of misusing his mask. We, as family members, tried to do our best, but we were unable to resort to a private service, seeing the high prices of oxygen cylinders. All these deaths from "air pollution" make me reflect on the lack of collective humanitarian thinking we had while it was still possible to reverse the situation. How much pain! And we have to bear the emptiness of that anguish. I know that currently the world is already improving but it is impossible not to look back and not see how many of us are gone.

283 Comments • 594 Shares



Like



Comment



Share

*November 18th, 2050**Another Monday, it was a day like any other.*

My day started with me thinking how difficult it is to stay positive when you have so many memories of easier, happier times. Sometimes I catch myself remembering pasts that no longer exist, wishing I could go back and live with more intensity.

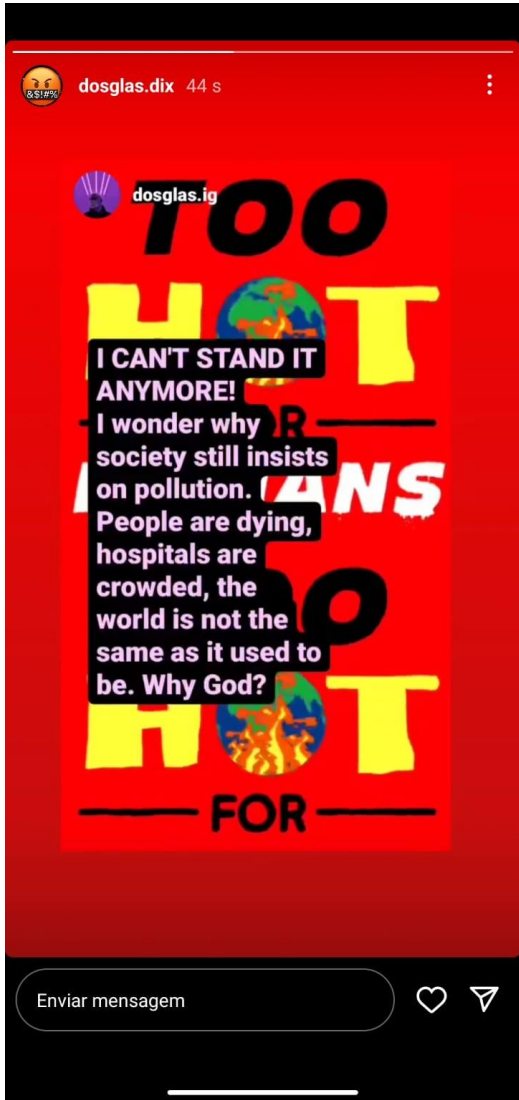
This thought followed from a memory from my late 20's, where all I did was hang out on Rio's beaches with my friends. Ah, Barra beach... I miss it! On sunny days, I'd take the old BRT (now extinct) crowded from Praça Seca to there, I'd arrive by sinking my beach chair in the sand, take off my clothes and go straight to the sea to cool off... Today, I replenish my vitamin D with pills, because all that was left were memories of refreshing air and a non-toxic sea.

Well, I didn't spend a lot of time complaining about it, I snapped out of my day-dreams with insistent pleas from one of my daughters for me to paint flowers and hearts on her gas masks, just like her friends masks at school. It broke my heart, but I had to postpone it again because I had a commitment to work.

The weather was normal today, the sky was gray as usual, and I didn't bother to use the protective cover because earlier that day I checked the Clima Tempo, and there was no forecast of super acid rain for today. Before leaving home I changed the cartridge in my mask, I was scared because today I saw the case of a man who died from being using the same cartridge for many days.

I went to work by VLT, today it was more crowded than usual, but nothing too alarming. For lunch I ate bread like I had for the last 5 days. I returned home and, after disinfecting myself, I was able to lie down on the bed in the company of my daughters. Now, as I admire their father-like little faces, I wonder what their future will be like in today's world.

A DAY IN THE LIFE...



Letícia Lany

@Letícia.lany

I heard that a couple of neighbors kicked their own son out of the house, he was thrown out on the street by force and WITHOUT MASK! They decided to dump it in the forecast week of super-acid rain. There are rumors that this happened because they found out that he is LGBTQIA+...



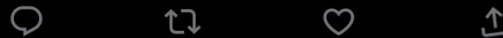
11:42 AM 18 nov. 50 [Twitter para Android](#)

356 Retweets 2.5K Curtidas



why still so hot today? it's 9:33pm 🥵
 🙏 god, I wish I could sleep tonight

13:58 · 22/11/2050 · [Twitter for iPhone](#)





susie
@bttson

orange sky of pollution: a
you in the stts:

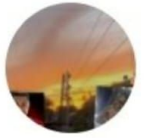


Vic
há 6 minutos



may
há 10 minutos

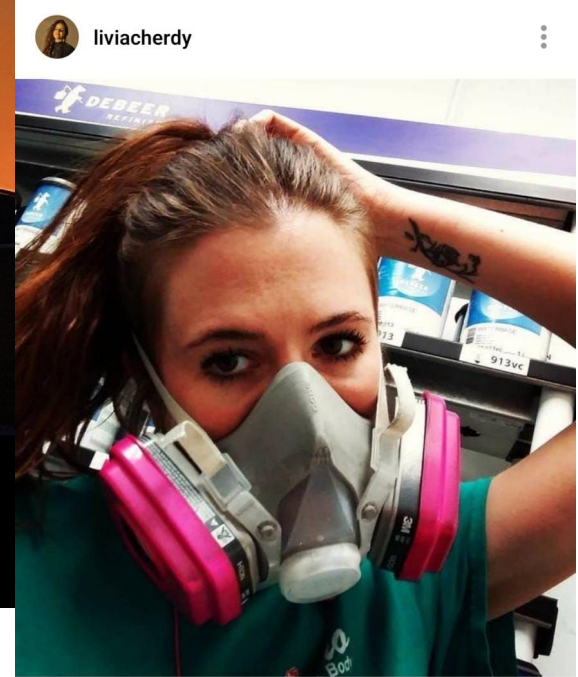
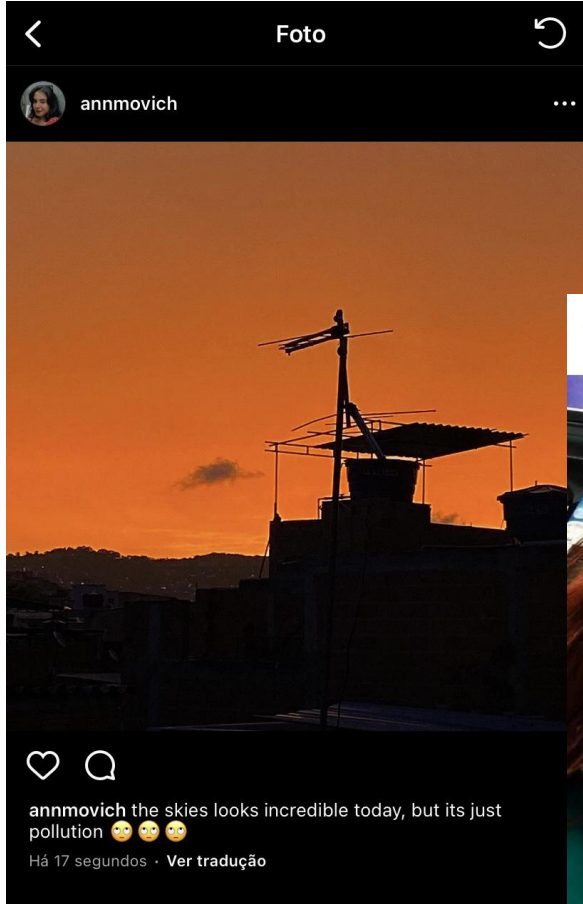
Atualizações visualizadas



Tatasenia
há 15 minutos

14:12 · 07 Nov 50 · [Twitter for iPhone](#)

356 Retweets 50 Quote Tweets 1.54K Likes



Curtido por [larasilva](#) e outras 368 pessoas

After changing the mask filter. Have you changed yours today?



CHOQUEI
@CHOQUEI

Balenciaga launches new steampunk-themed glasses and gas mask kit, will cost around 5,000 dollars. Would you use it??



14:12 · 15 Sep 50 · [Twitter for iPhone](#)

5.86K Retweets 356 Quote Tweets 2.01K Likes



PAN
@forumpanlr

New release by Prada in partnership with Mercedes. A raincoat with acid rain protection. What did you guys think??

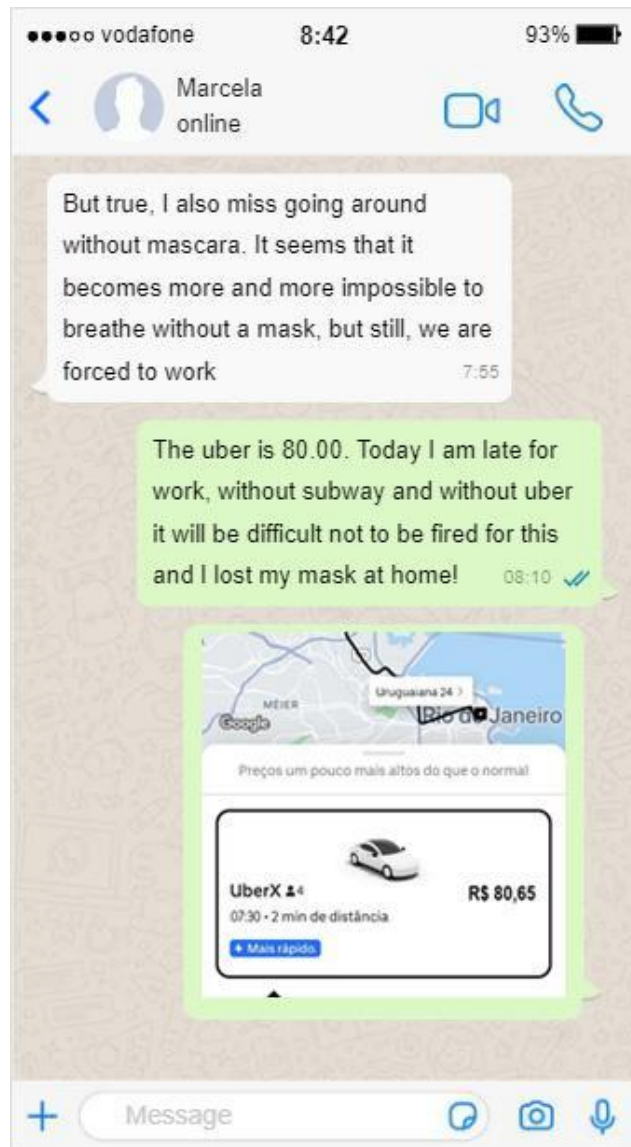
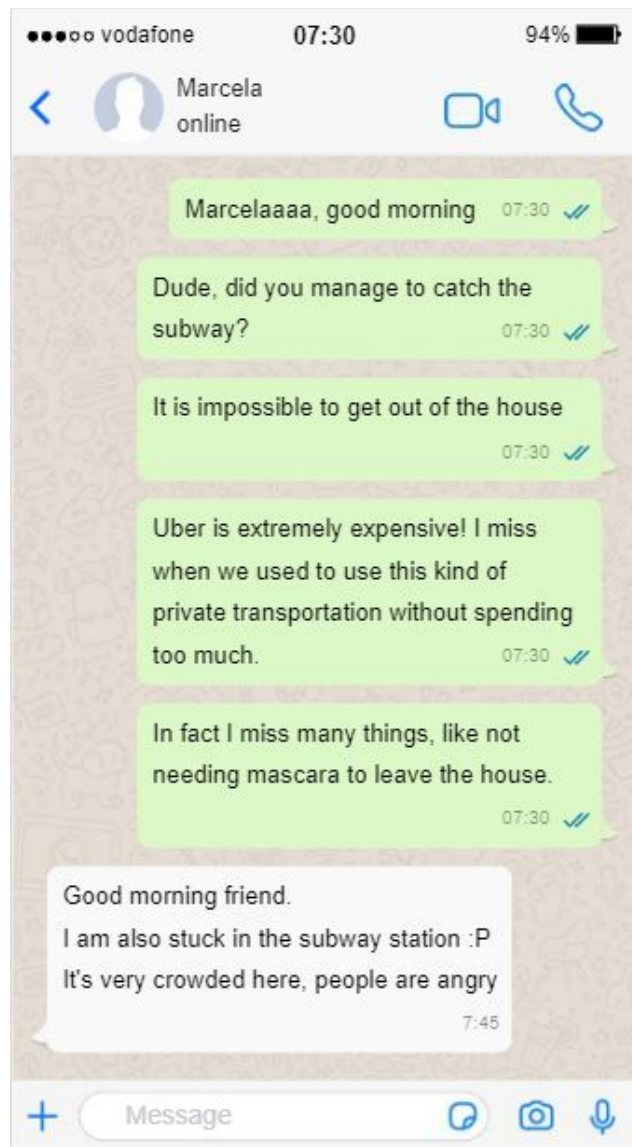


14:12 · 28 Nov 22 · [Twitter for iPhone](#)

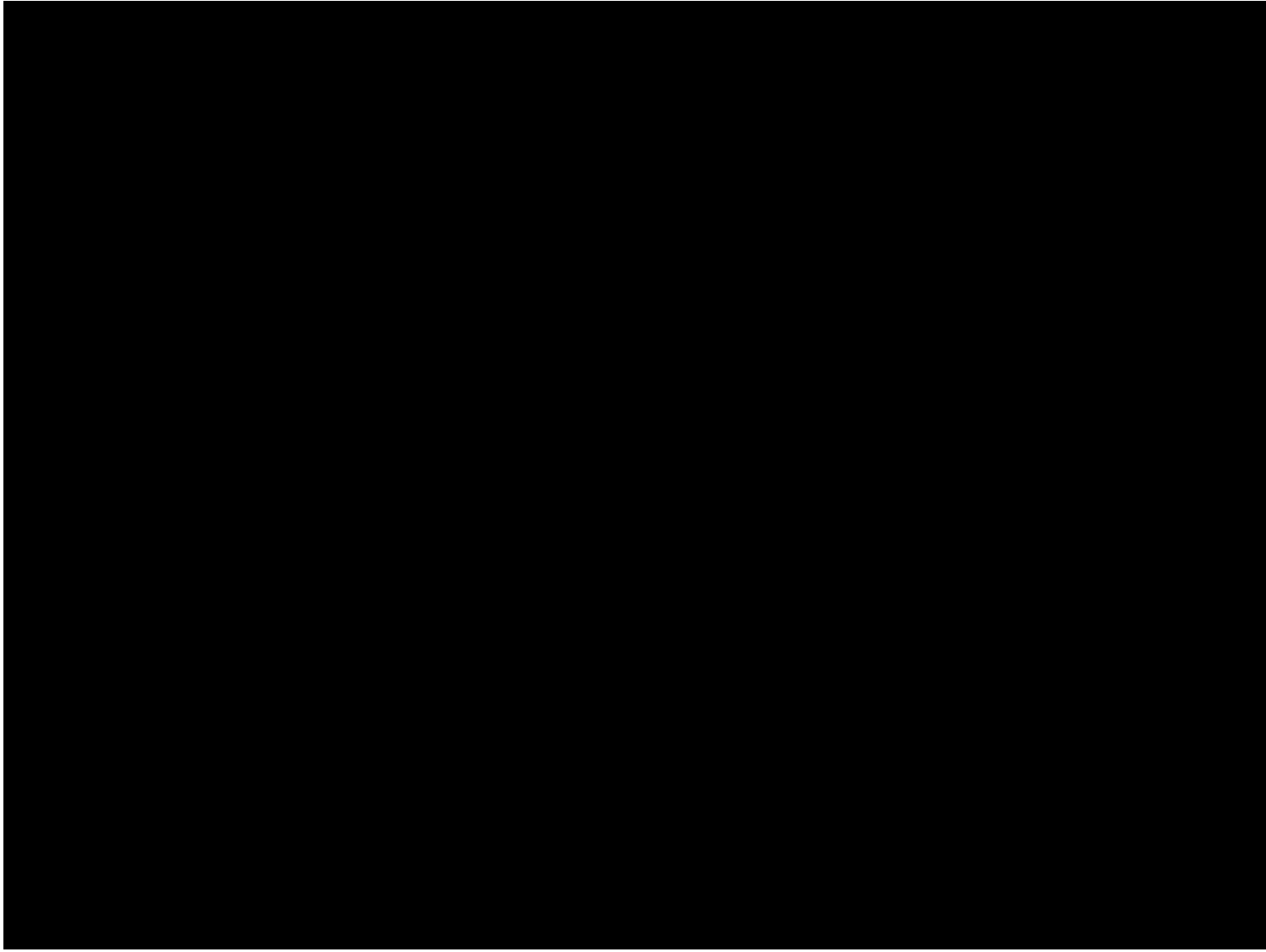
307 Retweets 284 Quote Tweets 1.64K Likes



A DAY IN THE LIFE...



BEFORE THE END ...



Ana Carolina Costa

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22 years

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URBAN FUTURE SCENARIOS UNDER CLIMATE CHANGE RIO 2050

ESDI



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This Scenario was built during the "Rio 2050: Urban Future Scenarios" Workshop, at ESDI/UERJ, in november 2022.

The authors agree it be made available at the Urban Future Scenarios website, with open access, and used as reference in future workshops.