BBC Newsday - Green Cement
25 November 2019 1000 am

Now, as cities expand particularly in places like India and China demand for cement to build homes and infrastructure is surging. Now, that's great if you're getting a new home but there's a problem because making cement releases huge amounts of CO2, up to 8% of the global total. For our series, Climate Defenders, ahead of the next big UN Climate Conference Rajini Vaidyanathan has been to meet the boss of one Indian Cement Company that's managed to slash its C02 emissions to 40% below the global average and aims to become carbon negative.

As India grows, so too, does its use of cement, now only second to China. Concrete buildings are changing the landscape here. But emissions involved in cement production are also pushing up global temperatures. The small town of Ariyalur in India's south is nicknamed 'Cement City' because it is home to some of the industry's big players. And, it's also here that one company's leading the world with a bold vision to make cement carbon negative by 2040. But is that really credible?

"Yes..."

Mahendra Singhi, the CEO of the Dalmia Cement company certainly thinks so. He's at the forefront of using climate friendly ways to make cement.

"The challenge which we took was that is it possible to bring down CO2 emissions from the cement and to create an example that cement can be greener also. And, you know, you'll be very happy to know that today we have the lowest carbon footprint in global cement world."

It's not been easy. Emissions from the cement industry contribute to global warming three or four times more than aviation does. And becoming carbon negative requires huge investment in cutting-edge technology to remove the remaining carbon dioxide.

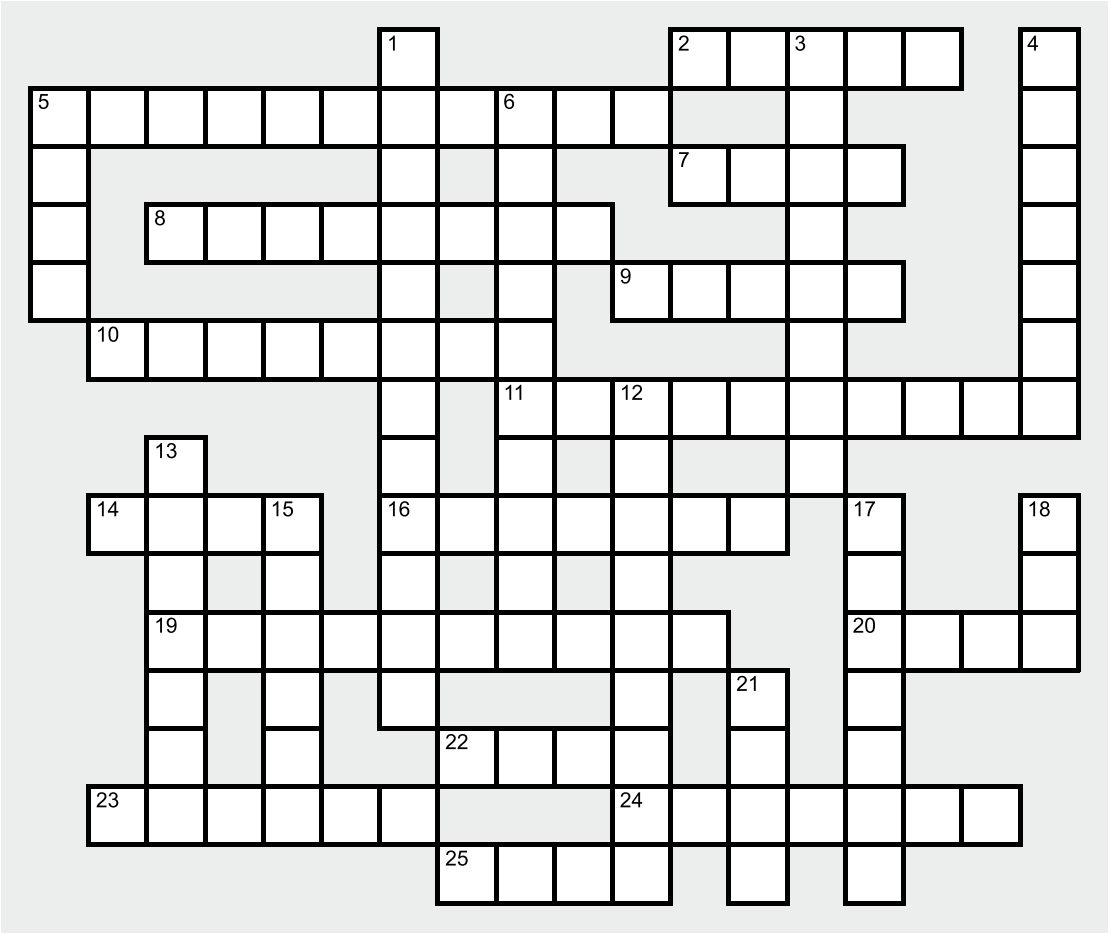
So why is cement so dangerous to the planet? Well, it's all in the way that it's produced. Limestone and other materials are heated to temperatures of 1400 degrees Celsius. And that process in itself emits carbon dioxide. As does the burning of the fuel to heat the kiln.

Dalmia aims to reduce those levels first by using renewable fuels to heat the furnaces. Here, bamboo's being used as a replacement for coal. Bamboo grows rapidly on waste land that can't be used for much else. Different types of waste are also being used as fuel. And waste material from power stations is added to the mix of ingredients reducing the need for limestone. But why not just use less cement? Well, the problem is it's very difficult to replace, as even environmentalists concede:

"Yeah, in the years to come India is going to rely more on cements but then the notion has to change. I don't think it's practical but in the longer run we can do it. We cannot eliminate the cement completely but we can find, erh, many more alternative materials."

Cement has now become one of the world's most consumed materials. But many people are still unaware of the damage its doing to the climate. It's still a big polluter but this plant in a small corner of India may be showing the way to reducing and one day eliminating its damage. Rajini Vaidyanathan, BBC News, Ariyalur.

Answers to the crossword are in the text overleaf



Across

1 Move from one place to another (6)

4 A time period of roughly 30 years also a group of similar aged people (10)

6 deal with something unpleasant (4)

7 socieites still in the process of industrilizing (10)

10 air travel (8)

12 important, serious, dangerous (8)

14 large-scale (4)

16 release (of gas) (9)

18 divde by two (5)

19 gone beyond (8)

20 plans (6)

Down

2 Speeded up (11)

3 Immediately past (4)

4 slow, steady, step by step (7)

5 Hold or keep (4)

8 increase (6)

9 increase (gets worse) (11)

11 The mass of air surrounding the earth (10)

13 keeps going (9)

15 Tens of years (7)

17 the opposite of freeze (4)