Twitter Thread by Jambavan

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https://t.co/odzm9VTdwZ

Thread for today. /0

It is fashionable for people to create sympathy to the unseen / unknown organisms. The poor things that can't stand up and fight for their own existence.

It makes for a brilliant narrative. It melts your hearts. And you get to play saviour of the oppressed by outraging. /1

But, for most part, such things are also false.

Amazon are the lungs of the world. Never mind that most of the world's oxygen production happens in open oceans. But these are harmless ones. Of course, we all love to maintain forests.

However, some things are sheer scare mongering.

For instance - take this: coral reefs will be permanently gone if mean / median temperatures raise by 1°C ..

But, really - how? Then you get a lecture on how CO2 will affect calcification.

Dig a bit deeper from another angle+

+ and you find that the earth was much much warmer during the age of Dinosaurs. So much so, that we had cold blooded lizards growing to sizes of buildings. Surely, there must have been tons of CO2 then!

And the ocean temps were quite high too.

How do we know corals survived it? Wasn't that a long time ago?

Here is the catch - Corals have been in existence for the last one billion years (or more).

No one asks, why would this 1° raise kill corals if the much warmer Triassic temps didn't?

Second one are news like the one quoted above. (Shark eggs are unviable **due to global warming**).

This is a false flag. Is there a correlation between these two? Maybe.

Is there a proven cause effect? It is almost impossible to do. While one can argue the reverse is also valid: that one can't disprove this isn't due to temperature, we can derive lessons from other strands of nature.

Intriguing and relevant are lessons from the fruit fly!

The fruit fly is a good system for drawing some inferences and ask the same questions of other systems. Like sharks or corals.

In 2010, Frankel et al published an excellent paper

https://t.co/8Q9ARW5iV5

Some background: information in DNA is controlled by short segments of DNA called enhancers. In 2010, Frankel et al found a particular enhancer that seemed redundant.

The function regulated by this family of enhancers was embryo development. That is the growth of the fly from its egg.

They deleted this "redundant" copy of the enhancer, and saw that it had zero impact on development. But then - when they deleted it and ++

++ grew the eggs in elevated temperatures, the eggs didn't develop into full live insects.

That is, this seemingly redundant enhancer was a contingency plan put in place by nature to deal with unforeseen events.

It is entirely coincidental that the best example to ++

++ describe contingency plans in living systems also involves survival in increased temperature.

Now we can at least use these lessons to ask questions about Sharks and corals!

If Drosophila, a relatively recent organism, can have contingency plans - won't the sharks have it?

Sharks have been around since before bony fishes. they have been around for 450 million years. They have seen the landmass become Pangaea, and then split again. And yet, we are to believe that sharks haven't witnessed / survived global temperature changes.

If sharks have it - logically they should - why won't the corals have it?

Remember - the entire argument isn't about whether or not warming occurs .. but it is about whether the scaremongering holds water.

If we have understood something about life, it is that it survives.

But then, does it mean there won't be any impact?

No. That is not the message. It is that the lower an organism is on the evolutionary scale, the lesser it will be hit.

Someone mentioned polar Bears. They will be hit. They are complex organisms with specific habitat reqs.

So, naturally - that organism which is most fastidious about its habitat, will be the most hit with climate change?

Guess the most fastidious numerous animal? Humans.

Climate change - irrespective of the cause, is seen to affect glaciers. No amount of wishing away changes it.

Humans will be the hardest hit - especially in zones where they are concentrated with depleting fresh water and forest cover (we come to rain forests again).

The complex web of life means that the over exploitation is the problem. So what is the way ahead?

Spoiler alert: short of cutting down human population by 90%, there is no solution.

All the measures (green tech) is just band aid on a open surgical wound. You can assuage your heart .. but it won't stop.

Take the example of China. ~1.25B people.

Think about it: China is a growing economy that wants to become a first world country in a hurry. It has 1.25B people.

What does it mean to be a first world country? Typically two things: food + water surplus, energy surplus.

What did China do to address these problems?

It trawled the oceans! And how?

https://t.co/2MkOv6O6CG

And they have been doing it for almost two decades now.

What the white man did to American Bison, Chinese are doing to the oceans. In a far larger scale.

As for water, we know their dam building activities. To think dams don't affect life forms is naive, so I will leave that there.

Last is Energy: China gets as much as 60% of its total energy from burning coal.

Energy is the currency of civilization.

And what we discussed is just one 1/6th of the global population. India is trying to climb the same ladder.

Everyone wants AC to protect them from the summer. Everyone wants a car. Everyone wants fresh water and food.

Nope. Global warming isn't going anywhere.

Then the argument is "don't have kids. Save the world". This is as foolish an argument as any. Having one child who would take the fight to save the world to the next generation, outweighs leaving the world to those who don't think it needs saving.

Politically incorrect.

What then is the solution? Likely, none for the next 200yr (short of a catastrophe).

For now, understand that anyone promising to do this within the next 30yrs is bullshitting.

Why? After India, it will be the turn of entire African continent to become energy and food surplus.

So, the only hope for the world is to become energy rich as soon as possible - and built technologically protected enclaves to save as many species as possible -- while keeping the population growth rate slightly negative and let it fall to sustainable levels.

Don't be anti technology. Organic sounds good. But GMO that produces twice as much food for the same resources, is much better. Don't shy away from incrementalism. Don't shy away from talking the stark truth: we will have to exploit nature to keep humans alive.

If you have to exploit the oceans to give humans food and water, you have to do it. Else, someone who is willing to do that will come to power. You won't like it, but you won't have a choice either.

Like all things humans - civilizational values are key in resolving this issue.

And with that we come to this last point. Not all civilizations are made equal. Some have values that are inherently better suited to sustainable living and existence than others.

Pick your value systems carefully.

Last but not least, and circling around to where we started: it is easy to tug at the nice part of your heart. It is difficult to reconcile the harsh realities with what we want it to be. Don't give into rhetoric of revolutionary changes and fast solutions. They are ruinous.

End of rant: don't take it at face value just because a scientist says so. Measure everything up against reality. You will see that most scientists are just cocooned IYIs. It takes wisdom to solve problems. // Fin.