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# CLIMATE CHANGE

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## ANSWERS UNVEILED

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WHAT IS CLIMATE  
CHANGE?

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BAD NEWS OR "POINT OF  
NO RETURN"

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"STABILIZATION WEDGES"  
CONCEPT

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GOOD NEWS

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ENVIRONMENTALLY  
RESPONSIBLE LIFE

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## WHAT IS CLIMATE CHANGE?

In keeping with my pledge to the ESG family, I'll be presenting a scientific response to the question, "Will Climate Change Kill Us All?" as well as the Stabilization Wedges concept. But let us first define what climate change is in its most basic terms: simply, climate is the average weather in a place over many years, while climate change is a shift in those average conditions. This is happening because of our activities that generate greenhouse gases which are the blanket that wrapping the earth and trapping the heat inside. Climate change is a hazard because it disrupts the Earth's temperature equilibrium, threatening food production, access to freshwater, habitable ambient temperature, and ocean food chains, to name a few.

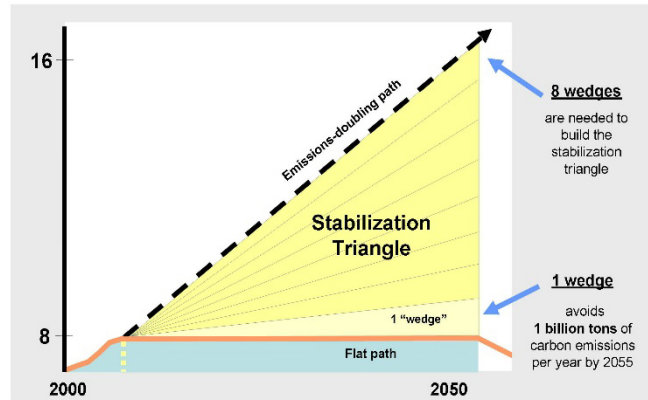


## BAD NEWS OR “POINT OF NO RETURN”



Climate change is a complicated issue, but the answer is straightforward: we must limit carbon emissions before reaching the **“Point of No Return”**. I know that sounds dramatic, but it’s as frightening as it sounds. The no-return point occurs when atmospheric carbon causes irreversible harm to the earth. The bad news is that by 2054, we may have passed the point of no return! The good news is that we still haven’t reached it and are able to stabilize current CO<sub>2</sub> concentrations to avert drastic climate change.

Earth’s civilization has already accumulated the key scientific, technological, and industrial know-how necessary to solve the carbon and climate problems for the foreseeable future.



## “STABILIZATION WEDGES” CONCEPT

**“Stabilization wedges”** are a simple tool for explaining the emissions reductions that can be achieved. Researchers evaluate two scenarios: “business as usual,” which would allow emissions to double, versus keeping emissions at current levels over the next 50 years. We can prevent a doubling of CO<sub>2</sub>, keeping emissions flat for the next 50 years, then work to reduce emissions in the second half of the century.

Keeping emissions flat will require cutting projected carbon output by about 7 billion tons per year. These carbon savings are what we call the **“stabilization triangle”**. Each wedge in the stabilization triangle represents an activity that reduces carbon emissions to the atmosphere, starting from zero in 2004 and increasing linearly to 1 billion tonnes (GtC) yr<sup>-1</sup> of avoided “business as usual” carbon emissions in 2054.

## HOW TO SOLVE THE CLIMATE PROBLEM

The wedges can represent ways of either making energy with no or reduced carbon emissions (like nuclear or wind-produced electricity) or storing carbon dioxide to prevent it from building up as rapidly in the atmosphere (either through underground storage or bio storage). Keeping emissions flat will require the world’s societies to “fill in” the seven wedges of the stabilization triangle. In reality, at least **15 strategies** are available now. That, with scaling up, could each take care of at least one wedge of emissions reduction.



## IT'S TIME TO LIVE RESPONSIBLY

Thus, we require seven wedges when we have the opportunity to cover fifteen wedges! That means we not only have the knowledge and technology to prevent climate change from killing us all, but we also are able to undo all the damage that has already occurred. Now it is up to us to begin living an environmentally responsible life. If you're wondering if your action will make a difference, consider this: efficiency alone can cover half of the wedges we need (4), and implementation is as simple as turning off the light in the room!



Have a wonderful day, ESG family, and continue to save the environment.

### Mays Kayed

Sustainability Manager

Royal Development Company



“We are able to undo all the damage that has already occurred”

## SIMPLE ACTIONS TO TAKE



### USE CAR SHARING

Car emissions are the largest contributor to climate change, so reducing it is key to the conservation of our environment. Less demand for cars will mean less demand for oil and fuel, which are also massive pollutants.



### REDUCE PLASTIC

Refining and manufacturing indirectly cranks up emissions as direct release of greenhouse gases, which breaks down in the environment.



### SET A/C AT 20-24°C

The reduction in AC temperatures to 24 °C from the conventional 18°C can result in 24 % of energy savings, leading to reduction of approx. 8.2 million tonne of carbon dioxide per year.