

Underestimation of Climate Change Costs

What is the issue?

- The climate scientists have been underestimating the rate of climate change and the severity of its effects for some time now.
- Now economists will necessarily underestimate their costs which is as bad as or worse than what the scientists did.

Why was there an underestimation?

- The reason for this economic underestimation has been explained in a recent report done by some scientists and economists.
- They are from the London School of Economics and Political Science, the Potsdam Institute for Climate Impact Research and the Earth Institute at Columbia University.
- **Reasons** - The underestimation of the rate of climate change and the severity of its effects by the climate scientists is one reason.
- The set of assumptions and practices in economics has led economists both to underestimate the economic impact of many climate risks and to miss some of them entirely.
- **Impacts** - These missing risks could have drastic and potentially catastrophic impacts on citizens, communities and companies.
- Because of this underestimation by economists, the world leaders are unable to understand the magnitude of the risks to lives and livelihoods, or the urgency of action.

What are the difficulties?

- **Nature of risk** in a climate-altered world is one difficulty.
- Right now, Carbon dioxide is at its highest concentration in the atmosphere in three million years.
- The last time levels were this high, the world was about 5° Fahrenheit warmer and sea level 32 to 65 feet higher.
- Humans have no experience weathering sustained conditions of this type.
- Stationarity - Our estimates of the value or cost of something (a loaf of bread or the impact of a hurricane) are based on experience.
- But when conditions change so much that experience is no longer a reliable guide to the future (i.e. when stationarity no longer applies), the estimates

become more and more uncertain.

- The economists approach climate damages as minor perturbations around an underlying path of economic growth.
- So, they take little account of the fundamental destruction that we might be facing because it is so outside humanity's experience.
- **Parameters that scientists don't feel they can adequately quantify**, like the value of biodiversity or the costs of ocean acidification is the second difficulty.
- A Study - When scientists lack good data for a variable, they don't assign a value because of the fear that they would be "making it up".
- Therefore, in many cases, they simply omit it from the model, assessment or discussion.
- In economic assessments of climate change, some of the largest factors like thresholds in the climate system are omitted for this reason.
- In effect, economists have assigned them a value of zero, when the risks are decidedly not.
- **Cascading effects** are the third and terrifying problem.
- One reason the harms of climate change are hard to understand is that they won't occur in isolation, but will reinforce one another in damaging ways.
- In a worst-case scenario, climate impacts could set off a feedback loop in which climate change leads to economic losses, which lead to social and political disruption.
- This in turn will undermine both democracy and our capacity to prevent further climate damage.
- These sorts of cascading effects are rarely captured in economic models of climate impacts.
- This set of known omissions does not include additional risks that we may have failed to have identified.

What could be done?

- There is urgency and potential irreversibility of climate effects.
- This means that we **cannot wait for the results of research** to deepen our understanding and reduce the uncertainty about these risks.
- This is so because the study suggests that if we are missing something in our assessments, it is likely something that makes the problem worse.
- This is yet another reason it's urgent to **pursue a new, greener economic path for growth and development**.
- If we do that, a happy ending is still possible. But if we wait to be more certain, the only certainty is that we will regret it.

Source: Business Standard

