

# SPATIAL FINANCE FOR A CLIMATE RESILIENT WORLD

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In the past few years, the integration of core geospatial with AI, ML, and IoT has picked up pace.

Sensor networks now include not only ground-based sensors for temperature monitoring or grounds or water stress monitoring, but also atmospheric sensors.

Going forward we will be even witnessing quantum sensors. There would be a significant profusion of data to the geospatial data lake.

In terms of climate modeling, ML is very useful for the inferential downscaling because climate models don't necessarily have a lot of granularity, but with ML, you can rapidly increase the scale or the processing time for the downscaling of climate modeling.

## Reinforcing Resilience

The applications of

new-age IT and data science applications to geospatial are quite significant.

Spatial finance, which is about complexity modeling and geospatial data science, is critical to build a resilient world.

It is a vital tool for understanding the impact of complex phenomena in complex, inter-connected systems, such as that of biosphere in global geography.

Anticipating the impact of climate risk, physical risk, and other hazards on locations, enables us to adapt better and to make investments that can reinforce their resilience.

Swiss RE says that for every \$7 spent on disaster recovery, only \$1 is spent on resilience.

But if you can forecast better the impact of climate hazards, then you can spend that \$1 or more in a precautionary way that helps places get more insulated from climate risks.

## Climate Consensus

Climate is a singular unifying global issue in many ways. There's some evidence of leading countries such as the US, China, and European Union cooperating more with each other to promote de-carbonization and net zero.

We are into Modeling, understanding the interplay of climate trends, asset values, demographic shifts, insurance premiums, and investment flows.

We guide investors to invest more capital in more resilient locations so that people, businesses, infrastructure can be increasingly located in resilient areas rather than are a very high persistent climate risk in a chronic way.

## Tech for Abundance

Technology more broadly plays a key role in climate change mitigation and advancing

sustainability because of abundance.

The abundance thesis is that technology raises productivity and efficiency of resource consumption, generating new resources such as cellular meat, plant-based food etc.

Technology as a tool for generating abundance limits or helps to limit the likelihood of competition among major powers over resources because they hopefully don't have to compete over them.

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