



unituscapital

The State of Climate Finance in India

Ideas and Trends for 2022

February 2022

Contents

1.0	The World Finally Agrees on Climate Change	3	4.0	10 Big Ideas and Trends for 2022	
2.0	What Happened in 2021			Solar Will Remain The Biggest Game in Climate Town	13
	Net-Zero became a thing	5		Energy Efficiency May Finally Take Off	14
	Indian corporates got their act together	6		There Will Be Way Too Much Ado About EVs	15
	Climate tech funding grew 4X in 2021	7		Agritechs will need to make real change happen on ground	16
3.0	India's 2030 Climate Action Roadmap			Early signs of scale in waste and circular economy	17
	India's emission targets need to be more ambitious, sooner	9		Supply chain transitions will come into the spotlight	18
	Getting India to 2.6 GtCO ₂ by 2030	10		Climate Equity Funding Will Continue to Diversify	19
	India Needs USD 1.01 Trillion in Climate Finance by 2030	11		Green Bond Markets Will Grow And Diversify	20
				Voluntary Carbon Markets Are Taking Off	21
				Climate Fintechs Are Bridging The Innovation Funding Gap	22
			5.0	End Notes	23

The world finally agrees on Climate Change

Climate change is all around us, and it gets more visible and more obvious with every hurricane, typhoon and tsunami that comes our way.

Though the world governments committed through the Paris Agreement in 2015 to curb emissions and keep global temperature rise to well-below 2°C, and potentially below 1.5°C when compared to pre-industrial levels, there have been many sceptics.

In August of 2021, the scientific community finally laid any doubts to rest, publishing their first ever [report](#) confirming that climate change is indeed caused by human activity and it is human action that will stop the world from getting warmer. It is now widely accepted that global emissions will need to halve by 2030, and net emissions will have to be zero by 2050 for us to have a chance to avoid a world warmer by 1.5 degrees.

India has been slow to get its act together on climate change and it was only in 2021, at the COP26 summit in Glasgow, that we agreed to pursue a goal of net zero emissions as a country. Private investment is crucial to meeting India's climate goals and while progress was made this year, this is much more to be done.

This report, The State of Climate Finance in India 2022, is our second annual stock-taking of India and its climate action priorities. We review the progress in climate action from an Indian perspective, and focus on what it means for the world of climate finance.

We invite readers of this report to draw from the insights and the findings of this report to advance their climate action aims, and also invite you all to reach out to us to connect and engage in mainstream climate finance in India and the region.

What Happened in 2021

Net-Zero became a thing

2021 was the year of net-zero

“Net-zero” was the word of the year for climate action in 2021. Unlike the varying emission reduction goals, getting to zero emissions is very tangible progress. And for the first time in 2021, a raft of countries, companies, and financial institutions committed to achieve net-zero by the mid-century.

Net-zero also shot into public consciousness this year. We searched through public mentions of net-zero over the years and it was barely on people’s minds until 2021.

Global Net-Zero Announcements

- **140** countries covering 90% of global emissions
- **410** publicly-traded companies (includes climate neutral pledges)
- **450** financing institutions representing USD 130 trillion in assets

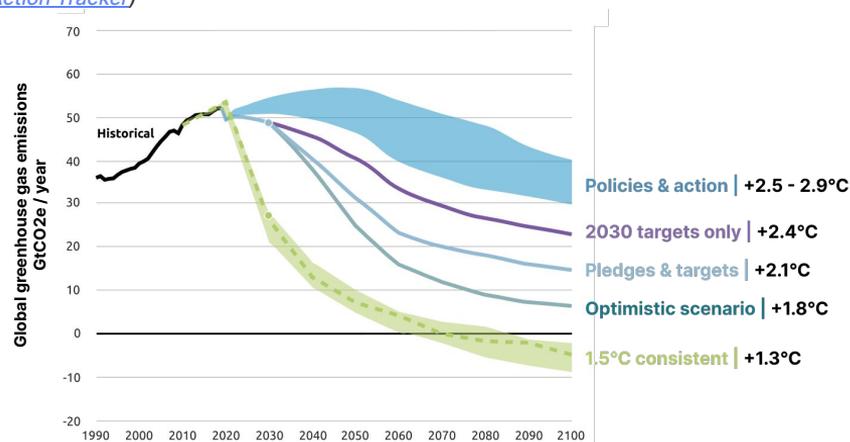
Net-zero paths: ill-defined but influencing private action

Figure 1 shows how achieving net-zero can meet our climate goals. The **Optimistic Scenario**, which includes all declarations towards net-zero, will limit warming to 1.8°C.

Details and specifics on how net-zero targets will be actioned and met are still thin. Only 27 countries have outlined a plan to get to net-zero emissions. The reliance on carbon offsets in many companies’ net-zero plans means less focus in tackling source GHG emissions from their activities and supply chains.

Still, we look at net-zero announcements as much needed progress. And we are seeing its effect as businesses and private funders focus on climate action with growing and more widespread financing and innovation interest - which this report showcases.

Figure 1: 2100 warming projections based on current policies and pledges (Source: [Climate Action Tracker](#))



India’s net-zero targets will need to be accelerated

India announced a net-zero target, to be achieved by 2070, in a big bang statement at the start of the Glasgow COP26 Summit, backed by revised and strengthened country-level objectives around strengthened renewable energy and non-fossil fuel-based energy targets, and an absolute carbon emissions reduction target by 2030.

However, 2070 is too far in the future and our hope is that the net zero commitment will be accelerated. The announcement is a good first step that will require policies, infrastructure, and industries to move towards reducing carbon emissions. But, as with the majority of countries, more specific action and details is required, sooner.

Indian corporates got their climate act together

We view 2021 as the year that Indian companies really got their act together.

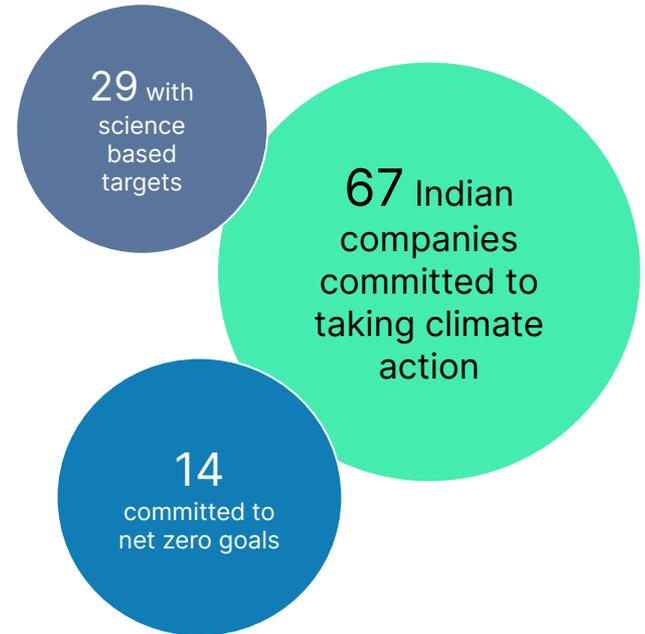
We saw some very large climate commitments made by incumbents, and also saw large companies committing to [science based targets](#) (SBT) to measure their GHG emissions and set out their climate action.

While the SBT number is small in itself, it is significant for how top listed firms have signed up to it and the significant progress in SBT adoptions over the last year.

Our highlights of climate commitments from Corporate India in 2021

- **Reliance** made India's biggest net-zero commitment, pledging **USD 80 billion** to green energy projects. Their acquisition-led strategy will lead to a rise in near-term investments.
- **8 out of the 10** largest companies in India (by market capitalisation) set net-zero goals, with most targeting net zero emissions by 2030.
- Net-zero commitments of global giants like **Amazon, LG, Hyundai** are pushing their value chains in India (including MSMEs) towards greener options.
- **ESG Funds** in India now have **USD 1.7 billion** in assets under management, up ~40% from 2020.

Snapshot of Science-based target commitments in India



Climate tech funding grew 4X in 2021

Climate tech funding in India is becoming vibrant

Climate tech businesses received USD 7 billion in equity funding in 2021. This is a 4X increase over the USD 1.87 billion in equity funding raised by all climate tech sectors in 2020.

Overall investment numbers are harder to get but extrapolating from green bond volumes and the leverage we have seen in the sector, we believe that total climate tech investment in 2021 was around USD 20 billion.

Climate funding in India is also becoming more vibrant with a growing segment diversity and a wider range of investors - we identified over 200 funders that participated in at least 1 climate tech round in the last two years (see page 19). This progress in 2021 gives some indication that climate tech is inching towards mainstream finance.

Climate tech funding is breaking out beyond renewables

The bulk of the climate financing still goes towards renewables, with electric vehicles a distant second. Later stage rounds skew the funding that has gone into climate tech - the 25 Series C and beyond deals constitute 86% of the USD 7 billion in funding.

In early-stage financing, funding interest is expanding into other areas of climate innovation. Renewables were responsible for only 12% of the 182 deals we tracked in 2021. Electric mobility was the largest segment with 68 deals. Agri and F&B sector saw 52 deals spread across the value chain, although agritech needs more focus at the farm-level (see page 16).

As early-stage financing proponents, the emerging sectors, in Figure 2, are the ones we are tracking with interest. We believe that some of these have the potential to provide a similar growth story as EVs in the next three years.

Figure 2: Sectoral breakup of equity funding in climate tech in 2021
(Source: Industry data and research)

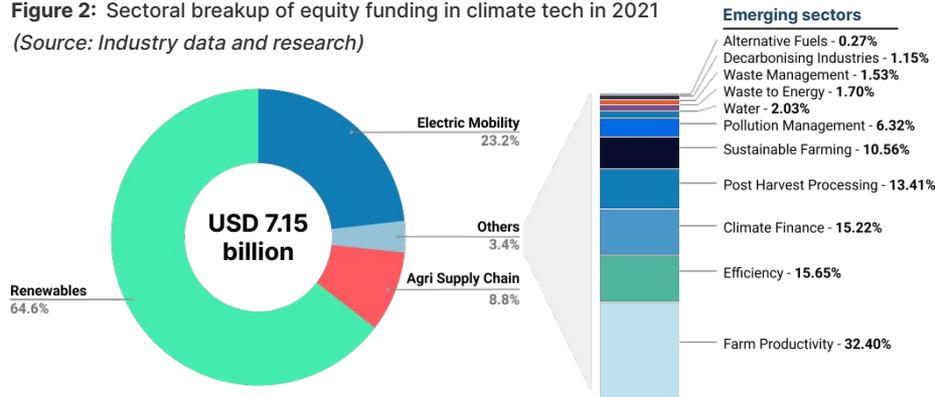
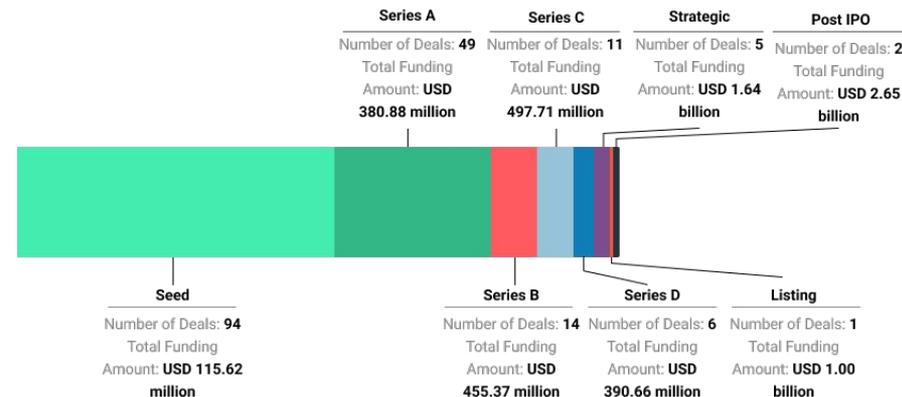


Figure 3: Number of climate tech equity deals across funding rounds in 2021
(Source: Industry data and own research)



India's 2030 Climate Action Roadmap

India's emission targets need to be more ambitious, sooner

2030 targets are foundational to tackle climate change

The next 10 years are crucial in setting the groundwork for our ability to combat climate change, which is why setting the right targets for 2030 is essential.

In their [6th Assessment Report](#), the Intergovernmental Panel on Climate Change (IPCC) stated that the global emissions have to halve by 2030, to under 18.22 Gigatonnes of carbon dioxide equivalent (GtCO₂e), for any chance of keeping global warming below 1.5 degrees.

India states its emission reduction targets in terms of reducing emission intensity (as % of GDP), which means that total emissions will keep going up due to economic growth. This is nowhere near the targets needed to align with the global trajectory and will likely need to become more ambitious over time.

India needs to target total emissions reduction

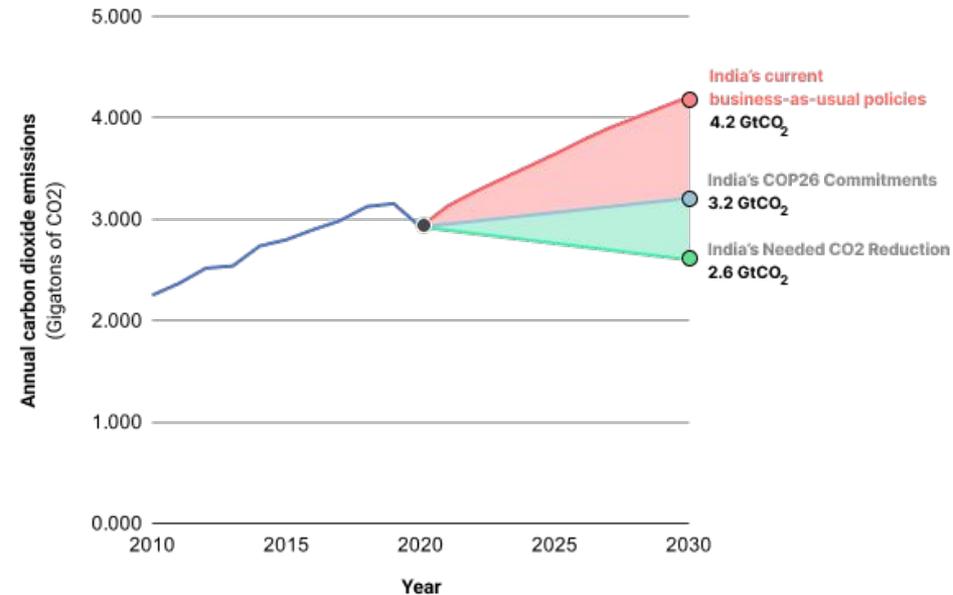
[India's 2019 emissions were 3.15 GtCO₂](#), a 7% share of global emissions. Based on pre-COP26 NDC-related policies, India's annual emissions were estimated to grow to 4.2 GtCO₂ by 2030.

At COP26, India committed to reducing 1 GtCO₂ of its annual emissions by 2030 as part of its net-zero pledge, which would put our annual emissions at around 3.2 GtCO₂.

In absolute terms, emission will still be higher than our current levels, and India's global emissions share would rise to 17%.

We believe that global net-zero goals and related supply chain impact will force India to be more ambitious and would therefore, put India's 2030 emission target at around 2.6 GtCO₂.

Figure 4: GHG emission pathways for India until 2030 (Source: Industry data and research)



Getting India to 2.6 GtCO₂ by 2030

A fair and necessary target

An annual CO₂ emission amount of 2.6 GtCo₂ is a fair and necessary target by 2030 for India. It would put India's share at 12% of global emissions.

2.6 GtCo₂ will be around 20% reduction from 2019 numbers. While lower than the global 50% target that the IPCC calls for, this accounts for the common but differentiated lower share of developing countries as compared to developed nations that were historically high-emitters. On a average per-capita basis, India's per capita emissions with this target would be lower than the global average by around 20%. It would also be 42% lower than the business-as-usual target outlined by India.

However, based on our current national policies, this is an extremely ambitious target to achieve, and will need private action aligned with net zero movement globally.

Figure 5: The route to 2.6 GtCO₂ (Source: Industry data and research)



Private action will play a significant part

We believe that a significant part of India's climate action will be driven by net zero commitments of private corporations and funders, both in India and globally.

Government will still be a crucial player, but we see three main non-government drivers that we feel will impact climate action in the next 10 years.

- Companies setting net-zero targets of their own
- The position of companies as part of global supply chains of companies that are committing to net-zero across their value chain
- The influence, opportunities, and expectations of investors and asset financiers looking for net-zero transitions across their assets.

The subsequent pages of this report take a look at which sectors are ripe for this transition, the gaps and opportunities inherent in them to set the foundation for them in the next 10 years.

India needs USD 1.01 Trillion in Climate Finance by 2030

An estimate of India's climate investments by 2030

We expect that India's climate action investments from 2022 to 2030 will total USD 1.01 trillion, an average of USD 112 billion annually. This investment gap is consistent with the emissions target India has set for 2030.

The investment estimate is an increase from our 2021 estimate of USD 910 billion from 2021 to 2030, mainly due to the increased focus and spend we are seeing in energy sectors beyond renewable energy supply, which we estimated as USD 300 billion until 2030, but now gauge at USD 540 billion.

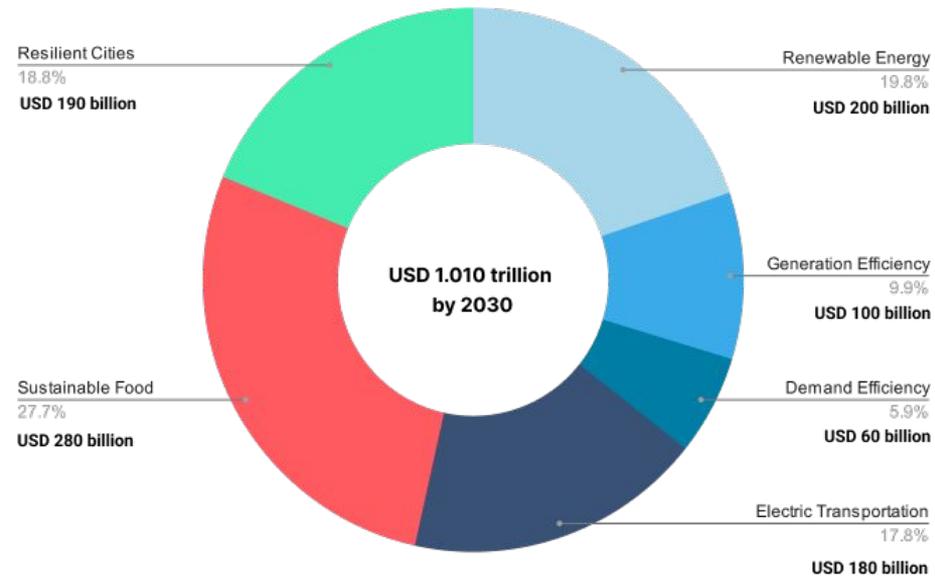
Sustainable food investment is reduced from our 2021 figure, as we expect that adaptation-related investments will take longer to see larger ticket sizes.

Resilient cities estimates draw from recent urban infrastructure development targets announced by the Government of India.

The main focus of these investments

- Renewable energy:**
 Adding 400 GW of renewable energy capacity
- Generation Efficiency:**
 Grid modernisation and smart metering
- Demand Efficiency:**
 Decarbonising industries, alternative heating and cooling technologies
- Electric Transportation:**
 Electric vehicle production and charging infrastructure
- Sustainable Food:**
 Farm productivity, food supply chains, plant based alternatives, methane emission reduction in farming and dairy
- Resilient Cities:**
 Waste management, water, sanitation, disaster management

Figure 6: Estimate of India's Climate Investments by 2030
 (Source: Industry data and research)



10 Big Ideas and Trends for 2022

Solar will remain the biggest game in climate town

Renewable energy ambitions get bigger this year

Renewable energy installed capacity crossed 100GW in 2021.

We will likely not meet the 175 GW targets India set for end of 2022 but the country has now upped its ambitions. Getting to 500 GW renewable energy capacity by 2030 will need project execution at a significantly faster pace than what we have seen so far. But the positive policy push and investment environment makes us hopeful.

By 2030, India is expected to have 280 GW of solar energy capacity, a 7x increase from current levels. At roughly half a billion dollars a GW, that's \$120 billion investment into new capacities by 2030. Include wind, biofuels and green hydrogen and we are looking at new renewable energy investments of USD 200 billion by 2030.

...And large solar companies continue to thrive

Solar started off as a crowded field with hundreds of startups but in the last two years, clear winners have emerged. With large players having dry powder to invest, a much lower cost of capital and strong project execution capabilities, there simply isn't room for small companies or new startups to thrive. We expect the top ten players to get bigger, with smaller businesses dying out due to lack of growth capital or becoming origination/EPC providers for larger companies.

Unlike the startups of past, the new entrants are incumbents in other sectors where they have successfully navigated the policy and capital challenges. They already have a playbook they can replicate for solar.

We also expect investments in infrastructure - solar cell, panel and battery manufacturing - in addition to generation capacity expansion we have seen so far.

Figure 7: Renewable energy capacity trends in India (in GW) (Source: Ministry of New and Renewable Energy, Government of India)

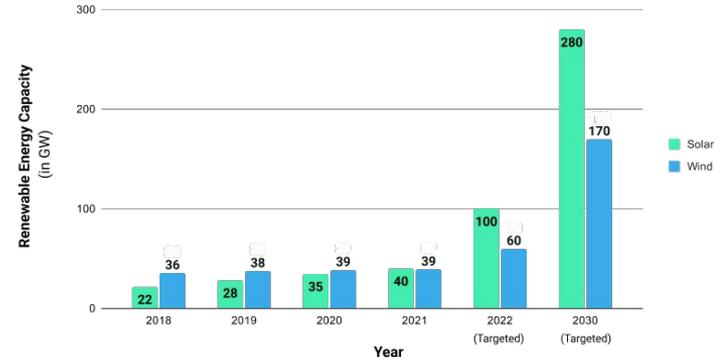


Table 1:

Big-ticket renewable energy investments by large companies

Reliance	\$80 billion	Committed over 10-15 years; 100 GW solar + giga factories for modules, fuel cells and storage
Adani	\$50 billion	Investment committed for renewables by 2030
Renew	\$9 billion	New solar+wind projects by 2025
Eversource	\$1 billion+	Investment through solar platforms: Radiance, Ayana
Virescent	\$270 million	KKR backed InViT for solar investments

Energy efficiency may finally take off

Demand side energy efficiency - installing efficient equipment in homes, building and industries - has grown steadily over the last few years. There are some large companies in this segment, and plenty of regional and local players who provide energy audits and efficiency solutions. We do not expect much to change in this segment in 2022.

But with increased renewable energy capacity, new segments are emerging in supply side efficiency.

The efficiency companies that we expect to emerge this year will make generation and transmission more efficient.

Key Energy Efficiency Trends and Drivers



+20%

Increased generation of solar plants with better asset management and regular maintenance.

- Automated/robotic cleaning
- O&M and asset management platforms
- Tracking systems and analytics



+17%

Avoided transmission losses through better metering and monitoring

- 250 million smart meters to be installed by 2025
- Updation of substation and transformer infrastructure



RE Ready Grid

A 500 GW renewable energy capacity will need a flexible, responsive and modern grid.

- One Sun One World One Grid (OSOWOG) with USD 800 billion in global investments by 2030
- Green corridor to provide RE evacuation capacity across states.

There will be way too much ado about EVs

Electric vehicles are a small but rapidly growing market

There is a euphoria around electric vehicles. EV startups received USD 1.8 billion in equity investments in the last two years, making them the second most active segment in climate action in India. This trend will likely continue in 2022.

EVs will likely experience non linear growth over the next decade but we have to remind you how small the market is today. At current volumes, electric two wheelers are 1.2% of the overall 2-wheeler market in India. Cars come in even lower at 0.47%.

EV OEMs are putting large capacities in place in anticipation of EVs becoming a large chunk of the new sales but the customer might not be there yet. Most 2-wheeler capacity is going into B2B delivery fleets. Similarly, while car sales may not grow quickly, recent government tenders are making electric buses a fast growing market.

Current business models reflect the early stages of evolution

EV today is where solar was a decade ago. In ten years, EVs will likely achieve price parity with conventional vehicles, with market shares expected to be 20-30%.

But unlike solar and unlike US (where Tesla is ahead of incumbents), Hero, Tata and Mahindra, not startups, look set to win the EV war. The sector will see consolidation, with smaller OEMs getting acquired or dying out. As volumes grow, we also expect the auto ancillary incumbents evolving to become EV component suppliers.

Business models like B2B fleet management and battery leasing emerged out of lack of financing options otherwise available to vehicles. But as EVs become more standard, financing options available for vehicle and battery finance will also converge to how vehicle finance operates. We expect a 5-10 year horizon for this.

Figure 8: EV Sales in India over the last 4 years (Source: [JMK Research](#))

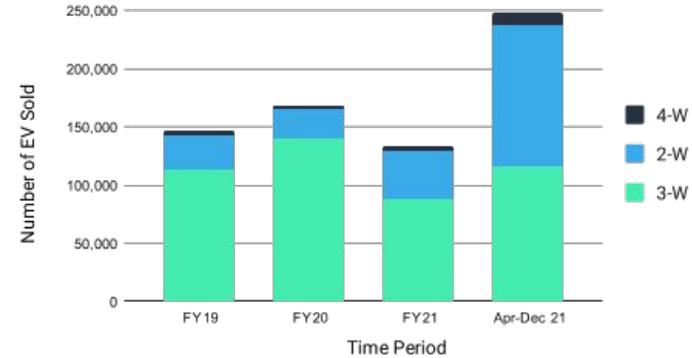
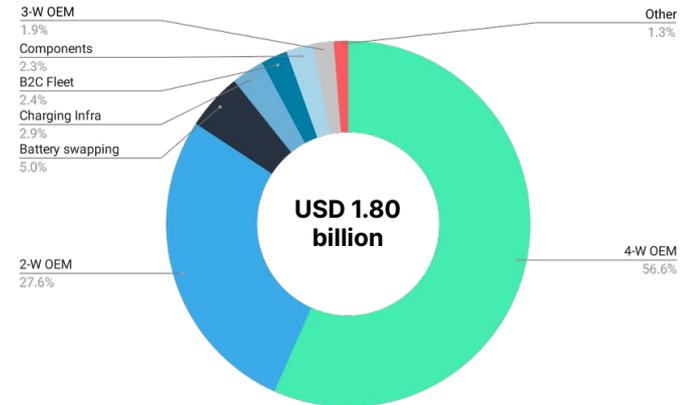


Figure 9: EV investment in FY 2020-21 (Source: *Industry data and research*)



Agritech will need to make real change happen on ground

Agriculture: Climate adaptation's first frontier

Climate innovation in agriculture has two objectives: reducing 18% of GHG emissions that the sector contributes, and meeting India's adaption goal of a resilient food supply.

CO2 mitigation through adoption of solar assets (dehydrators, pumps, etc.) is starting to scale. However, the sector's dominant contributor, methane (around 60% of agricultural emissions) has not got much of a look-in thus far.

Agriculture's adaptation story - about how we ensure quality food security in the face of droughts, floods, anomalous temperatures, and indirect contributors (excessive fertilizer and water use) - is far more critical. Early signs of activity are encouraging but more widespread, on ground work is needed.

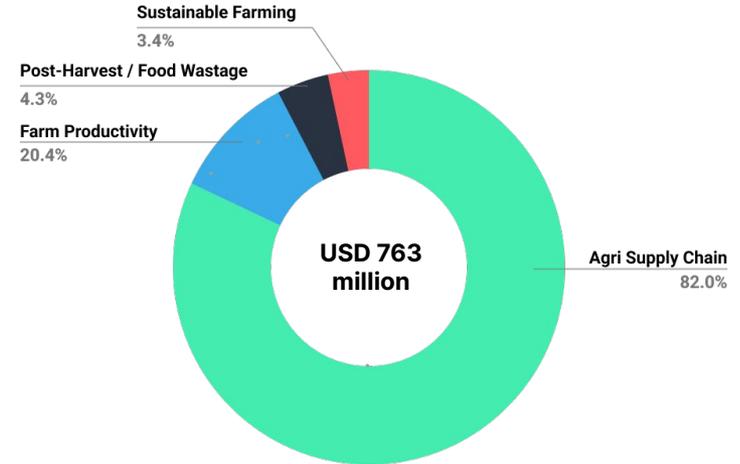
Agtech is dominated by off-farm solutions

On paper, agritech is booming with USD 763 million in funding in 2021 - 3.8x growth compared to 2020 - spread across early to late stage startups.

But funding and scale innovation is not happening at the farm-level. Tech plays in food security, logistics, processing tech, marketplaces, farm management software, and analytics, constituted 95% of VC funding in 2020 and 2021 combined.

We believe that adaptation goals will drive investment upstream in the near future. We expect more focus and financing for farm-level innovations, primarily around farm automation and precision agriculture, agri biotechnology (climate resilient crops and soil inputs), and to a lesser extent novel farming systems, (e.g. insect feed production, indoor farms).

Figure 10: Investment in agritech in 2021 (Source: Industry data and research)



On-farm solutions funding will grow from mid-decade

In 2020 and 2021, farm automation and mechanization, agri biotechnology, and novel farming systems received USD 32 million (5% of total agritech funding), mainly in small early-stage checks to test product-market fit. By 2030 we estimate funding for these sectors to be around USD 15 billion, as adaptation focus picks up and policies around climate-smart agriculture roll out. Funding for agritech overall could reach around USD 100 billion by 2030.

We expect more small-checks to enter the market, but the real inflection point will be when growth capital (investments of USD 50 million or more) starts getting deployed, something we expect to start seeing by 2024.

Early signs of scale in waste and circular economy

A few innovative plays are emerging in solid waste processing

Solid waste management and recycling dominate circular economy due to the immediacy and demand to handle waste more responsibly across sectors. Incumbents in the space are typically logistics companies looking to re-channelize the more than 50% wastes that get dumped in landfills and other places..

With waste volumes expected to grow from the current 62 million tonnes a year to 165 million tonnes a year by 2030, there is a need for innovation that can segregate and manage waste in a way that it does not end up at landfills - e.g. recycling and recovery.

Firms that effectively process solid waste, and either recycle it or convert it to other forms, such as energy, are starting to access growth and scale-stage funding, a trend we expect to accelerate in the near term.

High end recycling and recovery plays are emerging

Policies, including Extended Producer Responsibility (EPR) norms and recycling targets, will drive private finance into innovations linked to resource recovery. We also expect the need for resource security, especially in the high-value metals and electronics industries, to become an important driver of circular economy innovation - especially as battery manufacturing picks up.

High-end recycling and recovery solutions (e.g. plastics pyrolysis, high-value metal extraction from electronics and batteries) are starting to attract early stage venture capital, and we expect more significant funding from 2024 onwards, as these new technologies become more proven and commercially deployed, and as the increased supply of recyclable and recoverable waste makes such technologies viable.

Alternative materials are gaining early traction

Alternative materials technologies can be effective to reduce waste from getting generated in the first place, in areas like plastics.

The segment, especially in consumer facing industries (e.g. FMCG, F&B, cosmetics), is getting some demand side pull from the higher end of the consumer spend. It will still be relatively niche for the next few years as alternatives get to cost parity with plastics.

If closed loop waste management systems become more robust and effective, demand for alternatives will likely be limited beyond 2025.

The road ahead for circular economy funding

2020 and 2021 saw USD 40 million of funding towards waste management startups. We estimate that this will increase at least 10X, to around USD 500 million, by 2025 as municipalities engage private players at larger scale to support solid waste management, and as resource extraction from waste technologies mature.

2020 and 2021 saw the sector attract only single-digit millions into the circular alternatives space. We do not expect the circular alternatives to grow at such a fast pace, at least until 2025. Though a few companies can become prominent serving niche markets, a sectoral shift is unlikely as customer markets will put more emphasis and investment towards recycling and recovery.

Supply chain transitions will come into the spotlight

As more sectors transition towards climate action, an equally important focus is placed on their **supply chain components**.

We identify **3 emerging climate action sectors** that will attract a growing share of innovation and financing.



Batteries

Almost all **lithium ion and other new batteries** are imported into India. USD 6 billion of investments are planned for domestic battery manufacturing over the next 5 years, which will create an exponential growth in Made in India batteries.

Electric mobility will account for 90% of lithium-ion battery use. The batteries sector is going to be reliant on the adoption of EVs which faces a 5 to 10 year horizon to mainstream.

In energy storage, captive use will be the initial driver. Grid-connected storage will have to increase to match renewable energy targets, but will be reliant on upgrades to the grid infrastructure.

While lithium-ion does have a first mover advantage in a small market, other battery chemistry (e.g. metal-air and sodium-ion) appear to be more suited for certain applications. Investments from Indian energy majors indicate that the hype may be real.



Green Hydrogen

Green hydrogen grew into consciousness in 2021, on the back of commitments by Indian conglomerates and the launch of the National Green Hydrogen Mission. The green part comes from how hydrogen is generated, through electrolyzers that operate on renewable energy. The 3 million MT target of green hydrogen to be produced by 2030 is estimated to require 30GW of renewable energy - most of it new capacity. As a comparison, the [total renewables capacity](#) in the country is ~150GW.

Green hydrogen is a versatile product, from its use as an energy source in transport and energy-intensive sectors such as steel, in the manufacture of ammonia and fertilisers, and as a replacement for natural gas in heating and domestic energy use. While currently nascent from an investment perspective, this is a segment we expect to grow rapidly from here.



Decarbonisation

Carbon-intensive industries need more than just the adoption of renewables and clean energy to mitigate emissions. **Decarbonization** of industrial processes has been quite the niche. We were able to identify only about 14 decarbonization projects in India, since 2013, that have been registered for carbon credits - a total of 1.4 million tonnes, mainly in the cement industry.

We expect this to change, and pick up pace after 2025, with the cement and steel industries driving decarbonization in industries. Green hydrogen, incidentally, is projected to have the potential to reduce the steel sector's emissions by 40%, and play a big role in its decarbonization story.

Carbon capture and storage will not be a significant part of our decarbonization approach, until 2030 at least, as high costs, long return periods, and questions on technology effectiveness will restrict it to pilot adoptions at most.

Climate equity funding will continue to diversify

220+ Investors

A common climate finance narrative is that there aren't enough investors.

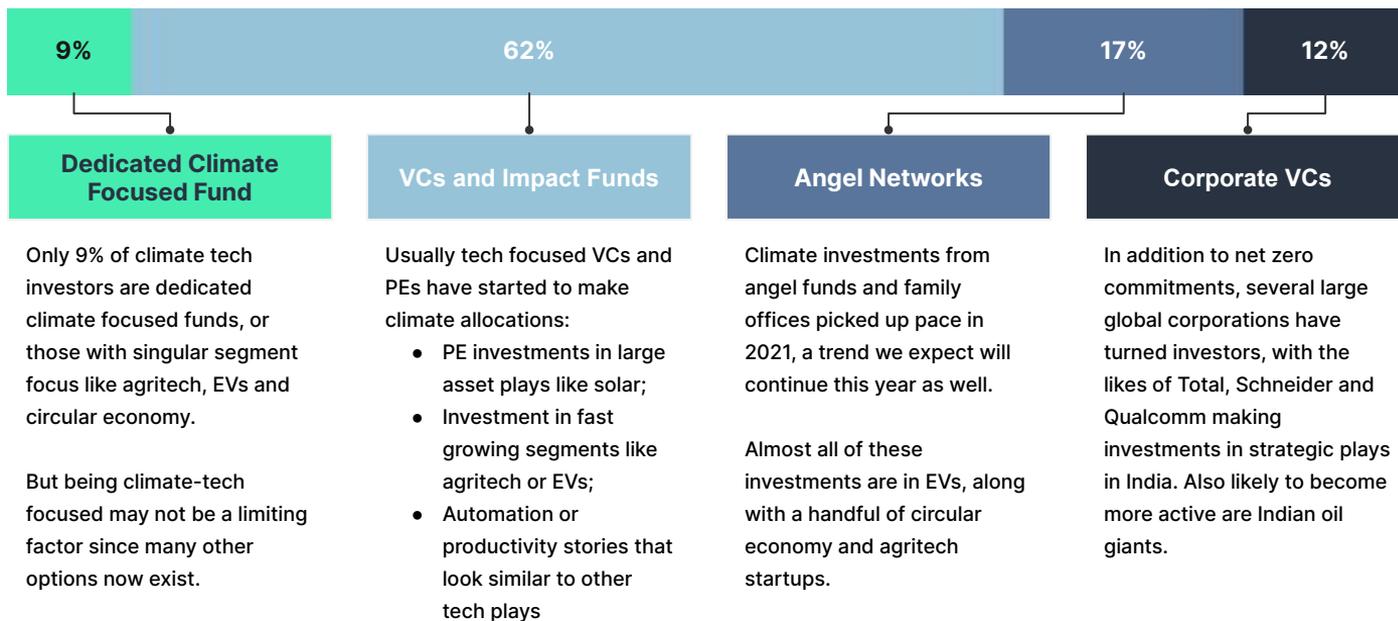
We have been guilty of making that assumption ourselves so we did some data crunching and found **more than 220 institutional investors** (not counting angels and incubators) who have made a climate positive investment in the last 24 months.

Yes, we were surprised too! But we have a list and we checked it twice.

Most of these 220+ investors have only made 1-2 investments so far. We believe that while not many specialist climate funds may come into existence, the other investor categories will deepen over the next few years.

Who are India's climate tech funders?

Figure 11: Climate tech equity funders breakup, over the last 24 months (Source: Industry data and analysis)



Green bond markets will grow and diversify

Green bonds are becoming more accessible

Green bonds provide large cleantech firms with an accessible, affordable option to raise patient capital. Issuances topped USD 6 billion for the first time ever in 2021, with bulk of the volumes coming from renewable (solar) developers.

We expect the markets to grow significantly in 2022 and over the next decade as solar industry keeps getting bigger, and other sizeable segments emerge in the climate action world. Specifically, in 2022, we expect to see green bond issuances from the electric vehicle industry and the first ever waste sector green bond from India.

While all green bond issuances so far has focused on mitigation, we are starting to see early signs of focus on adaptation funding.

Green bonds will see 2 different markets evolving

2021 saw the emergence of [variants](#) in the form of blue bonds, social bonds and sustainability bonds. We also noticed a handful of [climate resilience bonds](#), issued to fund sustainable agriculture.

Unlike developed markets where green bonds are typically listed liquid instruments, two separate markets are emerging in India. The larger market is for listed bonds, issued by mature sectors like solar, while issuances in emerging sectors are mainly bilateral transactions.

These private issuances provide climate tech firms with new sources of patient capital, often backed by guarantees to enable lending to businesses considered too risky by mainstream lenders. India's sovereign debt market is also likely to add green bonds issuances to fund public sector climate infrastructure projects.

Figure 12: Volume of Indian green bond issuance (Source: [S&P Global](#))

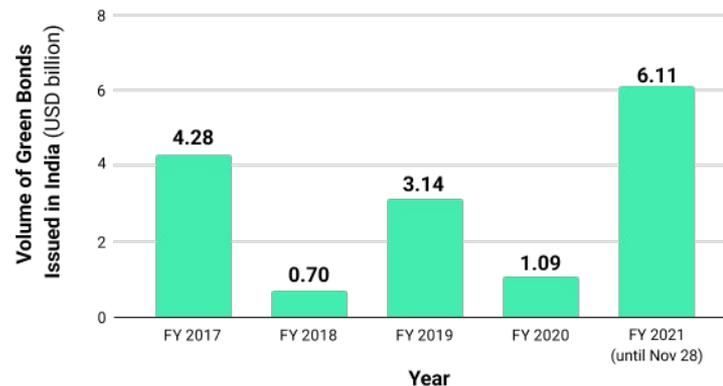


Figure 13: Indian green bonds by issuer type (%) (Source: [S&P Global](#))



Voluntary carbon markets are taking off

2021 was the best year for carbon markets; 2022 will be better

Voluntary carbon markets hit a [record \\$1 billion](#) in traded volumes in 2021. With almost 300 million tonnes of carbon traded this year, the sector is seeing an unprecedented boom driven by net-zero commitments of large corporations.

Carbon prices, tracked through indices created by S&P Global Platts, are also booming. Platts CEC, the first index launched in January 2021, [rose 900%](#) during the year. Buyers are becoming more aware of the quality of carbon credits as well. This reflects in the prices of forestry and land use credits, quoted at \$14/mtCO_{2e} compared to Platts CEC index's \$8/mtCO_{2e}.

Bloomberg expects [demand to increase to 1 billion tonnes](#) by 2030 and 5.2 billion tonnes by 2050. Depending on how regulations and markets evolve on which credits count towards net zero obligations, prices are also expected to increase to at least \$47, and possibly as high as \$120/mtCO_{2e} by 2050.

And India Has A Role to Play

With close to 100 million in carbon credits, accounting for registered projects and those under development, India accounts for almost 11% of carbon markets as per Verra, the largest registry globally.

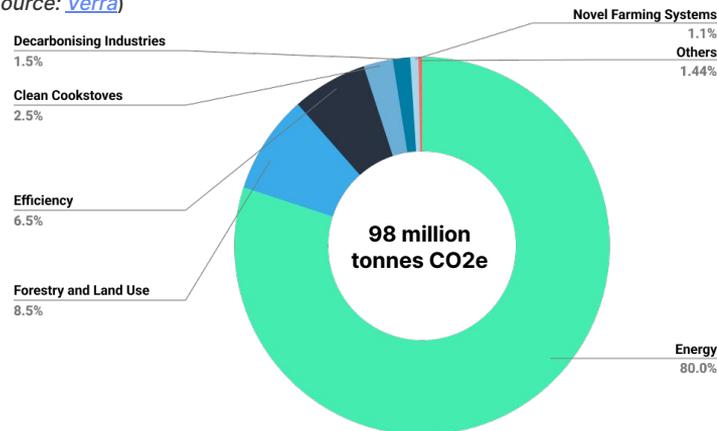
Like the rest of cleantech world, renewable energy projects account for 80% of carbon credits from India. But unlike new investments in clean energy, the bulk of these credits are for wind, biomass and co-generation projects.

For companies and projects who have audited and registered projects, we expect increased interest from net-zero buyers to drive monetisation. This, in turn, will also lead to project owners in emerging areas like EVs and waste management to take voluntary carbon markets seriously as a source of additional revenues. Even at currently estimated market share, carbon trading will potentially be a USD 2-5 billion market for India by 2030.

Figure 14: Rise in Platts Carbon Price Assessments (Source: [S&P Global](#))



Figure 15: Emission reduction breakdown from Verra accredited Indian carbon projects as on date (Source: [Verra](#))



Climate fintechs are bridging the innovation funding gap

Venture equity, a multitude of debt providers, and green bonds are creating viable funding options for climate tech at scale. But many early stage innovations are too risky for mainstream investors.

Climate fintechs are starting to fund some of these. These are a mere trickle right now, but we expect to see more financial innovation in climate in the near future.

The ones we see emerging right now are **carbon footprint offsets** and **fractional asset ownership**.



Carbon Footprint Offsets

A number of apps and platforms have emerged to help individuals offset their personal carbon footprint. What started as a way to help millennials assuage their guilt of emitting carbon on their travels and daily lives is having another effect on climate innovation.

Carbon offset platforms are funding projects often not considered commercially viable, but those with significant impact. We have seen examples of such projects in **forestry, rural energy** and **clean cookstoves**: all sectors too small or too high risk for commercial investors.

Climate is also becoming an increasingly popular investment option, with **crowdfunding platforms** raising small but valuable first rounds of funding for innovative technologies and projects that are yet to achieve proof of concept.



Fractional Asset Ownership

Fintechs are funding assets that are considered too risky by established asset funders. Platforms like **Grip, Pyse** and **SundayGrids** are offering fractional ownership of assets to retail investors.

The climate asset fintechs are building large pools of assets and are therefore, able to spend time and effort in understanding new and innovative asset classes.

They then convert these illiquid and large climate assets into a financial investment opportunity. Climate asset fintechs are opening up climate finance as an asset class for **hundreds of millions** of retail investors who can invest as little as **300 dollars**.

While the overall volumes are small (around **USD 10-20 million dollar a year** currently), this funding is the initial push climate assets need for early adoption that sets them on the path to scale.

End Notes

“ The impossible did not bother him unduly. If it could not possibly be done, then obviously it had been done impossibly. The question was how? ”

– Douglas Adams, *The Long Dark Tea-Time of the Soul*

We are often asked if the goal of keeping the planet from getting 2 degrees hotter is an impossible one.

We choose, instead, to focus on how it would be done. This report presents at least 10 ideas and drivers on what can start to turn back the clock on climate change.

If you have thoughts on what more can be done to make climate action and climate finance more effective, we would love to hear from you.

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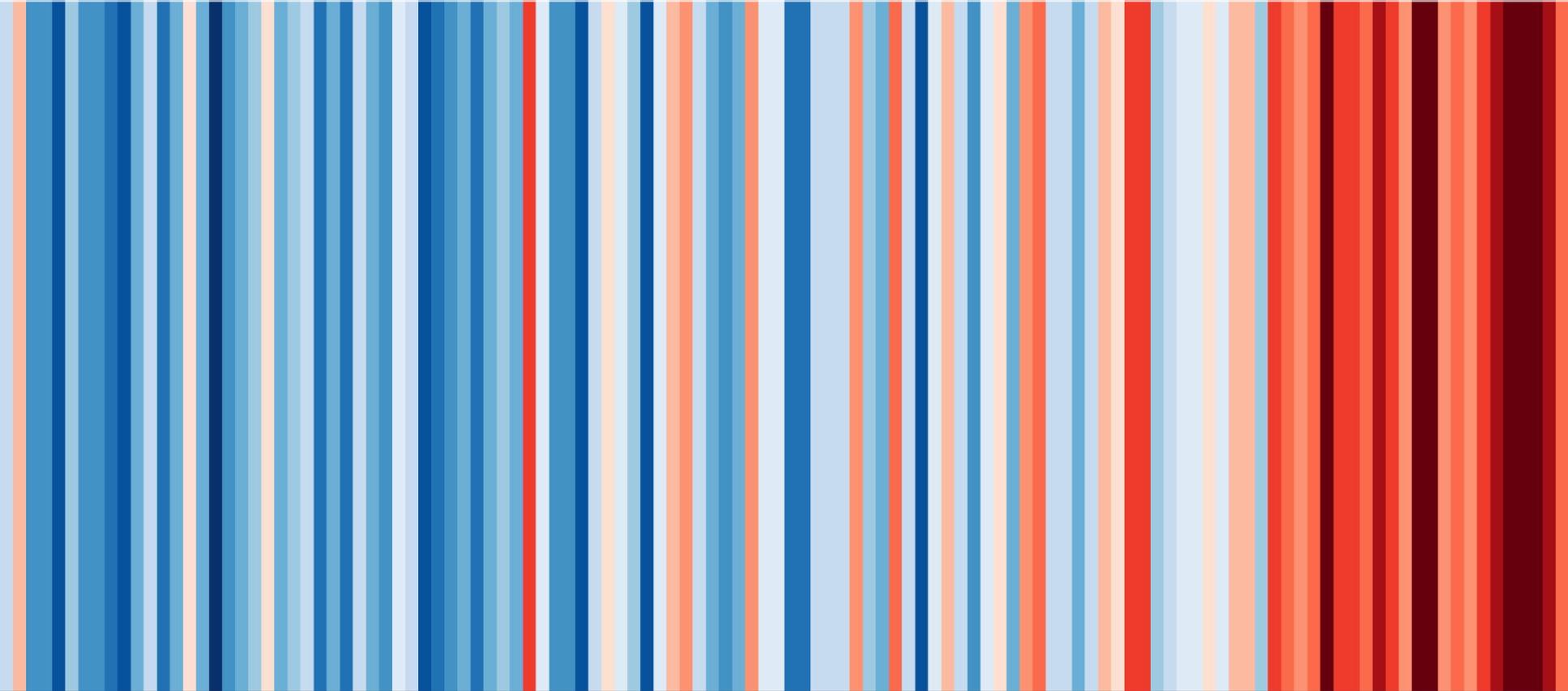
Climake is a growth platform for climate tech startups to access markets and access equity and non-dilutive capital. Climake works to support the development and adoption of innovative structures to mainstream climate innovations, by employing targeted approaches focused on 2 core areas for startup success: financing and funding, and market growth.

climake.co

Unitus Capital was founded in 2008 to accelerate the development of local and international capital markets for the benefit of businesses delivering deep social and environmental impact. Since launch, Unitus Capital has been committed to delivering best-in-class investment services that unlock the capital needed to fuel the rapid and sustainable growth of businesses committed to positively impacting the lives of low-income populations. To date, Unitus Capital has raised USD 3 billion+ in capital for 140+ enterprises.

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The image on the front and back covers of this report is of the temperature changes witnessed in India from 1901 to 2020, with every year from 1998 to today in the red bands indicating above normal temperatures over the last 25 years.
Source: [ShowYourStripes](#)