GreenTech

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Introducing GreenTech

The GreenTech sector has emerged as a beacon of hope in the face of an escalating climate crisis, offering innovative solutions to kickstart transition towards a sustainable future. As the world grapples with the consequences of decades of unchecked industrialization and overconsumption, GreenTech stands at the intersection of environmental necessity and economic opportunity.

GreenTech solutions (also referred to as ClimateTech or CleanTech) primarily focus on reducing carbon emissions, preserving natural resources, promoting sustainable development, and creating eco-friendly alternatives to traditional technologies.

Key segments of the GreenTech vertical include:

- **Renewable Energy:** Solar, wind, geo-thermal, and other clean energy sources.
- **Energy Efficiency:** Smart grids, energy-saving devices, and efficient building technologies.
- **Sustainable Agriculture:** Vertical farming, precision agriculture, and eco-friendly fertilizers.
- **Waste Management:** Recycling, composting, and waste-to-energy technologies.
- **Green Transportation:** Electric vehicles (EVs), hydrogen fuel cells, and shared mobility solutions.
- **Water Conservation:** Water purification, desalination, and efficient irrigation systems.
- **Carbon Capture and Storage:** Technologies to capture and store CO_2 emissions.
- **Circular Economy:** Reuse, remanufacturing, and designing products to minimize waste.

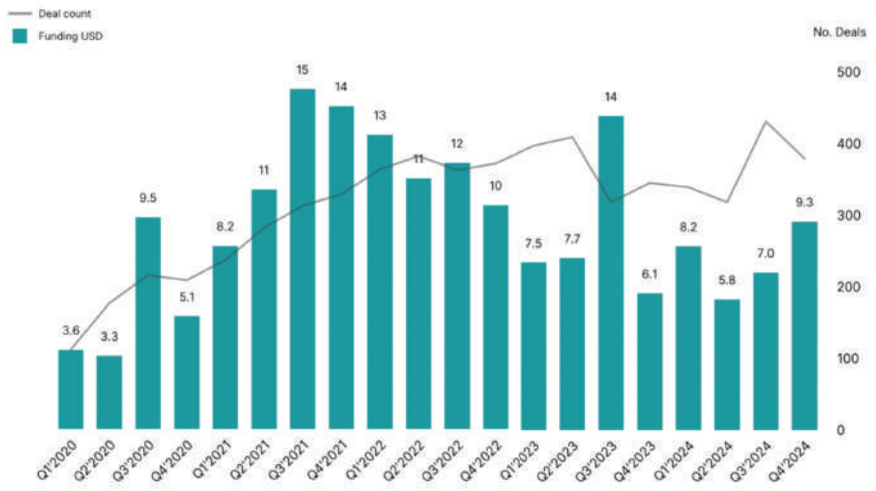
The Global GreenTech Landscape

The private sector is increasingly recognizing risks posed by climate change and opportunities presented by GreenTech solutions. Venture and growth investments in GreenTech companies reached USD 55.7 billion during 2023. While this represents a 25.4% year-on-year decline, it outperformed the broader VC market, which saw a 34.7% contraction. Interestingly, the number of GreenTech deals increased by 6.3%, compared to a 22.1% dip in the overall VC ecosystem. These figures demonstrate resilience of GreenTech investments even in challenging market conditions, underlining the sector's long-term potential and investor confidence.

There was some stabilization witnessed in 2024: venture and growth investment totaled USD 30 billion, down 14% from 2023, much less than the previous 25% drop, indicating a new normal for this sector.[1] Deal count was relatively consistent, at 1,460 in 2024, compared to 1,468 in 2023. There were also increases in later stage deals as the subsectors mature. Average deal size fell 14% to USD 24 million. Growth deal sizes were down a dramatic 48%, but Seed and Series B were up 12% and 38% respectively. Exits shattered 2022's record at 177 in 2024.

Overall, since the start of 2020, some 3,900 GreenTech companies have raised USD 182 billion+ of venture funding across over 6,200 deals.

Quarterly climate investment, 2020-2024 ($bn)



[1] *Sightline Climate (2025). Climate Tech Investment Trends 2024. Retrieved from https://www.sightlineclimate.com/*

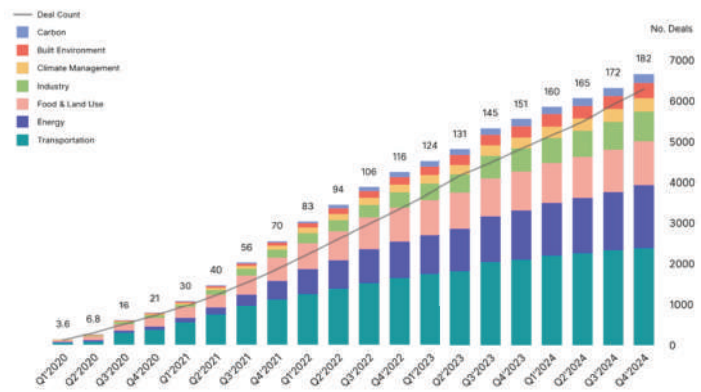
Demystifying AgriTech

There were also some big winners within the GreenTech sector. 2024 fared significantly better for global energy startups, with venture funding totaling USD 9.4 billion last year, representing an increase of 12%.[2] Energy investment, at 23% of cumulative spending, finally outpaced the dominant transport sector, which was the biggest performer by far, accounting for 50% of cumulative GreenTech spending in Q1 2021.

Funding for geothermal startups nearly tripled to USD 558 million, while nuclear investment almost doubled to USD 1.9 billion.

> *Green technologies - going green - is bigger than the Internet. It could be the biggest economic opportunity of the 21st century.*
> ***– John Doerr, investor and venture capitalist***

Cumulative climate investment by vertical, 2020-2024 ($bn)



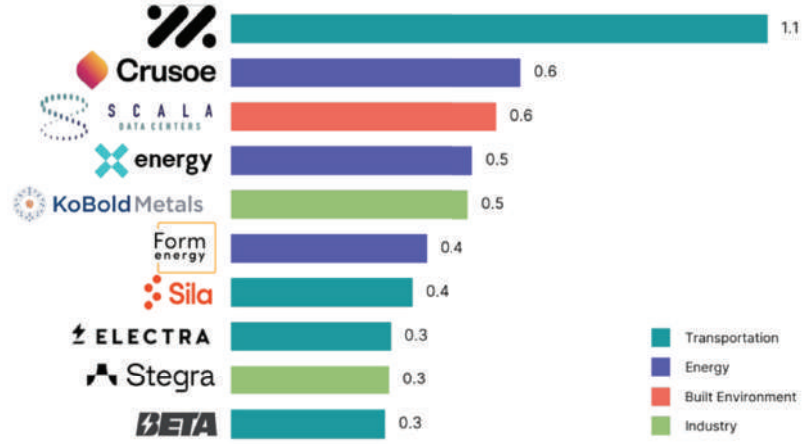
[2] *Liu, C. (2025). Artificial Intelligence Energy Demand Is Driving Climate Tech Investing. Bloomberg. Retrieved from https://www.bloomberg.com/news/articles/2025-01-07/artificial-intelligence-energy-demand-is-driving-climate-tech-investing*

Data centers and clean-firm power are driving major deals. Although the largest transaction involved IM Motors, a Chinese electric vehicle manufacturer, data centers have emerged as the new focal point for mega-deals. Companies like Scala and Crusoe are advancing clean energy solutions for powering data centers, while X-energy specializes in developing small modular reactors. Clean-firm power remains a key investment theme, with Form Energy, a producer of long-duration energy storage solutions, securing a spot among the top 10 deals. However, deal sizes have generally decreased as the market retreats from aggressive growth strategies.

Mega-deals in 2024 were significantly smaller compared to those in 2023. Last year, top deals were largely driven by battery technologies and their supply chains—including companies like Northvolt, Redwood Materials, Hithium, and Ascend Elements—averaging USD 780 million per deal. In contrast, the average deal size in 2024 dropped to USD 500 million, approximately one-third lower. Climate tech is now shifting into a more cautious phase, where higher standards are applied to investments, but funding amounts are notably reduced.

> *The choice between a healthy planet and good business strategy has always been a false one, and we've proved that with a company that runs on 100% clean energy and a supply chain transitioning to do the same.*
> ***– Lis Jackson, VP of Environment, Policy, and Social Initiatives, Apple***

Top 10 climate deals, 2024 ($bn)

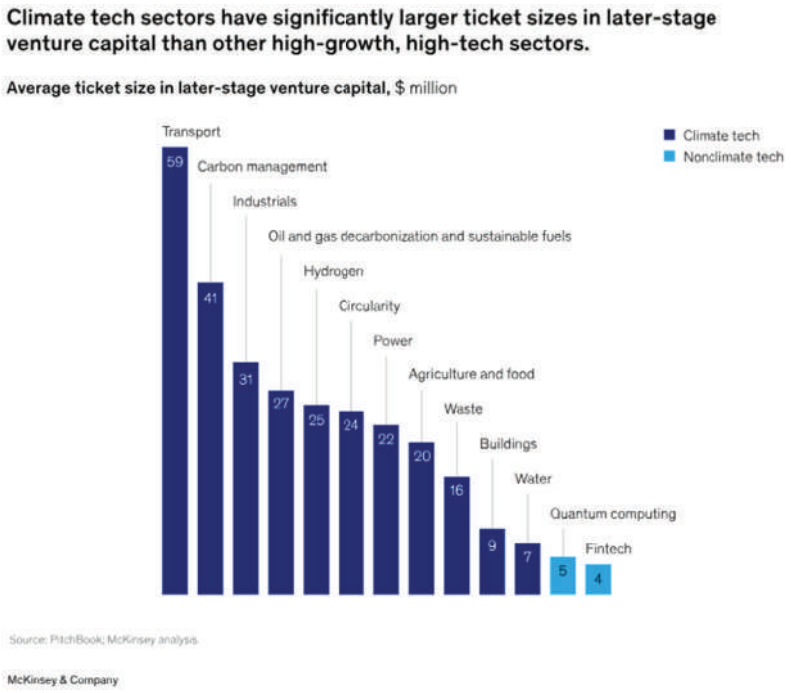


Unique Challenges of the GreenTech Sector

A recent report by McKinsey delves into the distinct obstacles and opportunities faced by green technology ventures.[3] Unlike the rapid scalability of software companies, GreenTech solutions—such as green steel production, carbon capture, and advanced renewable energy storage—demand substantial early-stage capital and extended timelines to achieve profitability.

Capital Intensity and Investment Challenges

GreenTech ventures require significantly larger investments compared to traditional tech startups. Early-stage venture capital (VC) investments in major climate technologies are five to six times higher than those in sectors like fintech or quantum computing. For instance, sectors such as carbon capture, utilization, and storage and the electrification of transport have early VC ticket sizes exceeding USD 25 million.



This substantial capital requirement positions GreenTech ventures in a challenging spot:

- **Venture Capital (VC):** Typically invests in high-growth businesses that are not yet cash flow positive but may find climate tech's capital demands too steep.
- **Private Equity (PE):** Generally prefers investing in cash flow-positive businesses, making early-stage climate tech less attractive.
- **Bank Financing:** Often considers these ventures too nascent for significant funding.

On the other hand, some entities might find GreenTech particularly attractive as an investment option. These include funds focused on ethical investment or socially responsible funds. The long term returns on GreenTech ventures might also appeal to funds which usually deal with long-term time horizons, e.g. pension funds.

Technological Readiness and Deployment

It is estimated that up to 90% of 2050 baseline man-made emissions could be mitigated using existing green technologies. However, only 10% of this potential comes from commercially mature technologies. Approximately 45% of the required emissions reductions depend on emerging technologies that have yet to be deployed at scale, such as floating wind turbines and e-fuels.

Regulatory Support and Market Dynamics

GreenTech benefits from favorable regulatory environments aimed at addressing climate change. Government incentives and policies play a crucial role in derisking investments and accelerating the deployment of these technologies. For example, the U.S. Inflation Reduction Act has provided significant support for clean energy initiatives.

Strategies for Overcoming Challenges

To navigate these challenges, ClimateTech companies can consider the following strategies:

- **Derisking the Business Case:** Developing robust business models that clearly demonstrate the viability and profitability of the technology.
- **Creative Financing:** Leveraging a mix of private capital, public incentives, and innovative financial instruments to meet capital needs.
- **Accelerated Scaling:** Implementing efficient operational strategies to reduce time to market and achieve economies of scale.

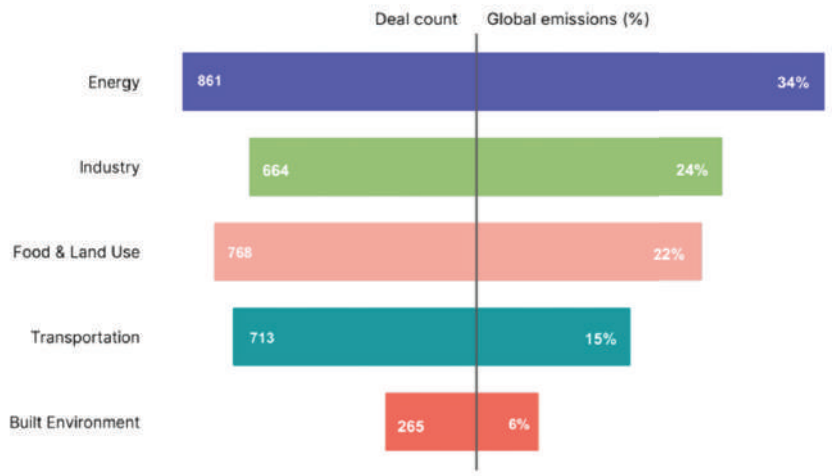
While GreenTech ventures face unique and substantial challenges due to their capital-intensive nature and longer paths to profitability, the combination of technological innovation, supportive regulatory frameworks, and strategic financial planning offers a pathway to overcoming these obstacles.

[3] *Birshan, M., Leinert, L., Nauclér, T., & Rehm, W. (2024). A different high-growth story: The unique challenges of climate tech. McKinsey & Company. Retrieved from https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/a-different-high-growth-story-the-unique-challenges-of-climate-tech*

GreenTech Deals: Investments Versus Emissions

The number of deals across various sectors is more evenly distributed and aligns more closely with emissions shares from 2020 to 2024. This indicates that investors have identified enough promising companies in each category to warrant investment. However, they remain cautious, seeking clear profitability paths and substantial customer bases to justify larger investments—particularly in sectors like Industry, which accounts for only 20% of deals, and clean-firm power, contributing 26% of energy sector deals.

Climate deal count by vertical vs emissions, 2020-2024



Source: Sightline Climate, IPCC 2019 // Note: Emissions dropped during the Covid-19 pandemic, but have now returned to pre-2020 levels, making 2019 emissions data still a reasonable comparison.

Meanwhile, the Built Environment sector is quietly gaining traction, with deal volumes slightly exceeding its share of emissions at 8% and investment levels generally aligned. Growth in areas such as energy efficiency, building management software, and data centers is expected as investors focus on opportunities tied to rising AI-driven energy demand and incremental innovations that cut emissions while reducing costs.

Zooming in on Pakistan

As of 2024, Pakistan's GreenTech sector is experiencing significant growth, driven by a combination of policy initiatives, market dynamics, and increasing environmental awareness. This expansion encompasses renewable energy adoption, sustainable transportation, and environmental conservation efforts.

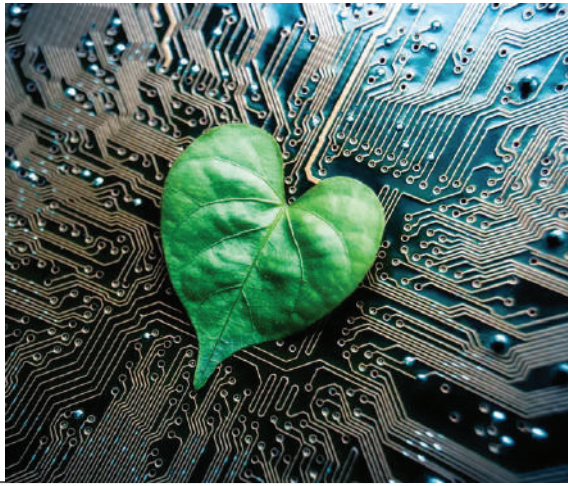
Renewable Energy

Pakistan is making significant strides in renewable energy development, aiming to generate 60% of its electricity from renewable sources by 2030.[4] This ambitious goal requires substantial investments, including USD 50 billion for renewable electricity production, USD 20 billion for grid upgrades, and USD 31 billion for transitioning from coal to solar.

As of March 2024, the country's total installed electricity capacity stood at 42,131 MW, with the energy mix comprising 25.4% hydel, 8.4% nuclear, 6.8% renewable (wind and solar), and 59.4% thermal sources.[5] The country has seen rapid growth in solar and wind capacities, with net metering installations reaching 1,055.03 MW across 63,703 installations by June 2023. Hydropower remains a major contributor, generating 35,273 GWh in FY23, while wind power produced 4,086 GWh.

The government has introduced several initiatives to promote renewables, including a framework for Fast Track Solar Initiatives targeting 10,000 MW of solar power.[6] This includes 6,000 MW from utility-scale projects, 2,000 MW from medium-scale PV networks, and 1,000 MW from solarization of public buildings. The Sindh Solar Energy project, supported by USD100 million from the World Bank, has already added 16.39 MW of capacity.

Pakistan's renewable potential is vast, with wind energy resources estimated at 346 GW, and the ability to generate 19.79 TWh of electricity from biogas using only cattle and buffalo manure.[7] The government has also drafted a solar manufacturing policy to promote local production, with plans to increase manufacturing capacity.[8] These efforts are expected to enhance energy security, reduce import dependence, and lower electricity costs for consumers while providing significant environmental benefits.



[4] *Pakistan - Renewable Energy. (2025, January 08). Retrieved from https://www.trade.gov/country-commercial-guides/pakistan-renewable-energy*
[5] *Pakistan Ministry of Finance (2024), Pakistan Economic Survey, 2023-24. Retrieved from https://www.finance.gov.pk/survey/chapter_24/14_energy.pdf*
[6] *Rahim, Dr. S. (2022). Govt's Noble Fast-Track Solarization Initiative - Pakistan Gulf Economist. Pakistan & Gulf Economist. Retrieved from https://www.pakistangulfeconomist.com/2022/10/10/govts-noble-fast-track-solarization-initiative*
[7] *Abbas, Y., & Aslam, R. A. (2023). Potential of Untapped Renewable Energy Resources in Pakistan: Current Status and Future Prospects. Eng. Proc., 56(1), 108. doi:10.3390/ASEC2023-15274*
[8] *Ghumman, M. (2024). 10-year solar panel manufacturing policy finalised. Brecorder. Retrieved from https://www.brecorder.com/news/40299469/10-year-solar-panel-manufacturing-policy-finalised*

Electric Vehicles

Pakistan is making strides in electric mobility, with 34 electric vehicle (EV) assemblers licensed by the Engineering Development Board as of April 2024, primarily focusing on two and three-wheelers. The country aims to have EVs capture 30% of passenger vehicles and heavy-duty trucks by 2030, and 50% of buses and two/three-wheelers by the same year. In 2023, fourteen electric and hybrid vehicles were launched, despite overall car sales plummeting to 65,843 units. The EV charging infrastructure is still limited, with only eight charging stations nationwide as of December 2023.

The government has introduced incentives, reducing sales tax on EVs from 17% to 1% and customs duty from 25% to 10%. However, challenges persist, including high upfront costs, limited charging infrastructure, and electricity shortages. The transition to EVs could potentially reduce carbon dioxide emissions by 1.47 billion kg/year by incorporating 0.5 million EVs into the transportation grid by 2025.

Several banks in Pakistan currently offer financing options for electric vehicles, particularly focusing on electric bikes.[9] Notable examples include Allied Bank which offers the Allied Electric Bike Finance program, providing loans with flexible repayment terms ranging from 1 to 4 years. Mobilink Bank launched an E-Bike loan initiative in collaboration with PakZon Electric Motors, offering customers a 6% discount on electric bikes, complimentary checkups, and a one-year battery warranty. Meezan Bank provides the Apni Bike financing facility, a Shariah-compliant option, enabling customers to purchase motorcycles on easy monthly installments.

Circular Economy

Pakistan is actively addressing its waste management challenges, generating about 50 million tons of solid waste annually, increasing by 2.4% each year. The country is implementing various initiatives across different waste sectors. In municipal solid waste, Pakistan has joined the Global Plastic Waste Action Partnership and introduced bans on single-use plastics in cities like Islamabad and Lahore. The country recycles 45% of its paper waste and has achieved a 41% recycling rate for Tetra Pak products.

In industrial waste, the textile industry, contributing 6% of Pakistan's greenhouse gas emissions, is adopting sustainable practices like carbon sequestration and renewable energy use. The tannery industry is exploring chromium recovery from waste, with potential savings of 50kg of chromium per 1,000 hides processed daily.

In agricultural waste management, Pakistan generated 650 million metric tons of waste from just four major crops in 2023, and is currently providing subsidized machinery to reduce crop burning. The country has over 200 biogas plants utilizing

[9] *Kashmirwala, U. (2024). Pakistani Banks That Are Offering Loan For E-Bikes. Brandsynario. Retrieved from https://www.brandsynario.com/pakistani-banks-that-are-offering-loan-for-e-bikes/*

animal manure. The government has also introduced the National Hazardous Waste Management Policy 2022, offering incentives for private sector involvement in waste management, including low-interest loans and tax benefits for green technologies.[10]

In 2022, the Global Environment Facility partnered with the United Nations Industrial Development Organization (UNIDO) on the Renewable Energy and Energy Efficiency (REEE) project to promote adoption of renewable energy sources and energy efficiency practices within the Pakistani industrial and manufacturing sector.[11] The REEE project has cut carbon emissions by over 17,000 metric tons of CO_2, with additional reductions from post-project replications. It has supported the industrial sector by developing a regulatory framework for RE/EE, training energy consultants, conducting energy surveys, implementing Energy Management Systems, and creating replicable RE demonstration projects.

Low Carbon Technology

Pakistan's GreenTech ecosystem is nascent, with most local solutions focused on renewables, EV assembly, and limited circular economy initiatives. Between FY19 and FY23, Pakistan imported USD 11.1 billion worth of low carbon technology (LCT) goods, accounting for 3.8% of total imports. However, LCT imports plummeted 58.7% to USD1.08 billion in FY23 due to government restrictions. China was the largest source, providing USD7.5 billion in LCT imports. Pakistan's LCT exports stood at USD 632 million from FY19 to FY23, just 0.5% of total exports.

Some progress is being made in sustainable agriculture, with companies like Farmdar using satellite imagery to optimize farming practices. The Punjab government is subsidizing 60-75% of the upfront cost for micro-irrigation systems. In energy storage, Pakistan has set up a 20,000 KW lithium-ion battery system at the Jhimpir 1 Substation to store wind energy. Moreover, the country's first vertical farm was established in Karachi in 2016, supplying produce to high-end restaurants and supermarkets.

Venture capital has emerged as the dominant, and in many cases, the only significant source of funding for innovative startups in Pakistan. Between 2019 and 2023, VC firms deployed a total of USD 858.2 million across 259 unique deals. This influx of capital has been instrumental in fueling the growth of Pakistan's startup ecosystem.

[10] *Pakistan announces National Hazardous Waste Management Policy | Enviliance ASIA. (2025, February 18). Retrieved from https://enviliance.com/regions/south-asia/pk/report_9221*

[11] *Sustainable Energy Initiative for Industries in Pakistan. (2022). United Nations Industrial Development Organization. Retrieved from https://www.pakistantoday.com.pk/2023/05/01/government-approves-first-national-energy-efficiency-policy*

Despite the overall decline in VC investments, the GreenTech space has managed to attract USD 15.04 million across 16 deals involving eight companies between 2019 and 2023. While this figure represents only about 1.5% of the total VC investments during this period, it signals growing interest in sustainable and environmentally focused technologies.

GreenTech investments in Pakistan span several key areas:

1. Electric Mobility: Three startups in this space have attracted investment. Two of them, ezBike and Zyp, focus on electric motorcycle assembly, whereas Orko develops fleet management software. Although the total investment in this vertical stands at a modest USD 2.3 million, it reflects the early stages of Pakistan's transition towards electric transportation.

2. AgriTech: Ricult emerges as the most well-funded GreenTech startup, having raised nearly USD 8 million since its inception. Operating in both Pakistan and Thailand, Ricult's success highlights the potential for cross-border expansion in the GreenTech sector.

3. Renewable Energy: Eco Energy stands out as a notable player in this space, focusing on expanding electricity access to off-grid communities through an innovative rental distribution model. This approach addresses both environmental sustainability and social inclusion, key tenets of GreenTech innovation.

Despite the relatively modest deal flow, Pakistan's GreenTech sector has attracted a diverse group of investors, including both impact-focused multilateral investors like the Bill & Melinda Gates Foundation and Islamic Development Bank to market-driven venture capital firms like Indus Valley Capital and Wavemaker Partners.

Government Policies

Pakistan has implemented a range of green energy policies to diversify its energy mix and promote sustainability.[12] Prominent recent initiatives include:

Alternative and Renewable Energy (ARE) Policy 2019: This policy aims to increase the share of renewable energy—excluding large hydropower projects—to 20% by 2025 and 30% by 2030. It encompasses various renewable sources such as wind, biomass, and small-scale hydro, providing a framework to attract private sector investment and facilitate on-grid and off-grid applications.

Electric Vehicle (EV) Policy 2020–2025: To reduce emissions from the transport sector and decrease reliance on imported fuels, Pakistan introduced the EV Policy, targeting a 30% share of electric vehicles in passenger and heavy-duty traffic by 2030. The policy offers incentives such as reduced customs duties on EV imports and tax exemptions to encourage local manufacturing and adoption of electric vehicles.

National Energy Efficiency and Conservation Policy 2023: Building upon previous efforts, this policy provides a comprehensive framework for energy efficiency across sectors such as industry, buildings, transport, and agriculture.[13] It emphasizes institutionalization, operationalization, and implementation of energy conservation measures, aiming to double the rate of energy efficiency improvements by 2030. The NEEC policy envisions monetary savings of USD 6.4 billion/annum post-2030.[14]

[12] *Policies on energy - ICIMOD. (2022, December 15). Retrieved from https://www.icimod.org/initiative/reeech/policies-on-energy*
[13] *National Energy Efficiency and Conservation Policy (2023). National Energy Efficiency & Conservation Authority. Retrieved from https://www.neeca.gov.pk/TopStoryDetail*
[14] *Government approves first national energy efficiency policy. (2025, February 26). Retrieved from https://www.pakistantoday.com.pk/2023/05/01/government-approves-first-national-energy-efficiency-policy*

Pakistan's Solar Energy Policy

In 2024, the Pakistani federal government finalized a comprehensive 10-year policy titled "Solar Panel Local Manufacturing and Allied Equipment," aiming to bolster domestic production and reduce reliance on imports.[15] This policy introduces a series of incentives for manufacturers, including imposing tariffs on imported finished goods to promote localization. However, it is currently pending final approval.

Policy Development and Stakeholder Engagement

The Special Investment Facilitation Council (SIFC), during its fifth Apex Committee meeting on September 8-9, 2023, directed the formulation of this policy through extensive consultations within Working Group (WG) meetings. Subsequent discussions involved relevant stakeholders and potential foreign investors interested in establishing solar panel manufacturing facilities in Pakistan for both local consumption and export purposes.

Incentives and Tariff Structures
The policy outlines several key incentives:

Exemptions: Duties and taxes on raw materials and machinery used in local manufacturing of solar panels and allied equipment will be exempted.

Import Tariffs: To discourage dependency on imports, tariffs on finished solar panels and allied equipment will be incrementally increased over the policy period.

Roadmap and Targets
The policy sets forth a structured roadmap with specific targets as follows.

Manufacturing Capacity:
Increase from 1 GW to 10 GW from the sixth year onward.

[12] *Ghumman, M. (2024). 10-year solar panel manufacturing policy finalised. Brecorder. Retrieved from https://www.brecorder.com/news/40299469/10-year-solar-panel-manufacturing-policy-finalised*

Export and Local Sales Ratio:
- Year 1: 50% export, 50% local sales
- Year 2: 60% export, 40% local sales
- Year 3: 70% export, 30% local sales
- Year 4: 80% export, 20% local sales
- Year 5 and onward: 90% export, 10% local sales

Localization Targets:
- Year 1: 0% localization
- Year 2: 30% localization
- Year 3: 40% localization
- Year 4 and onward: 50% localization

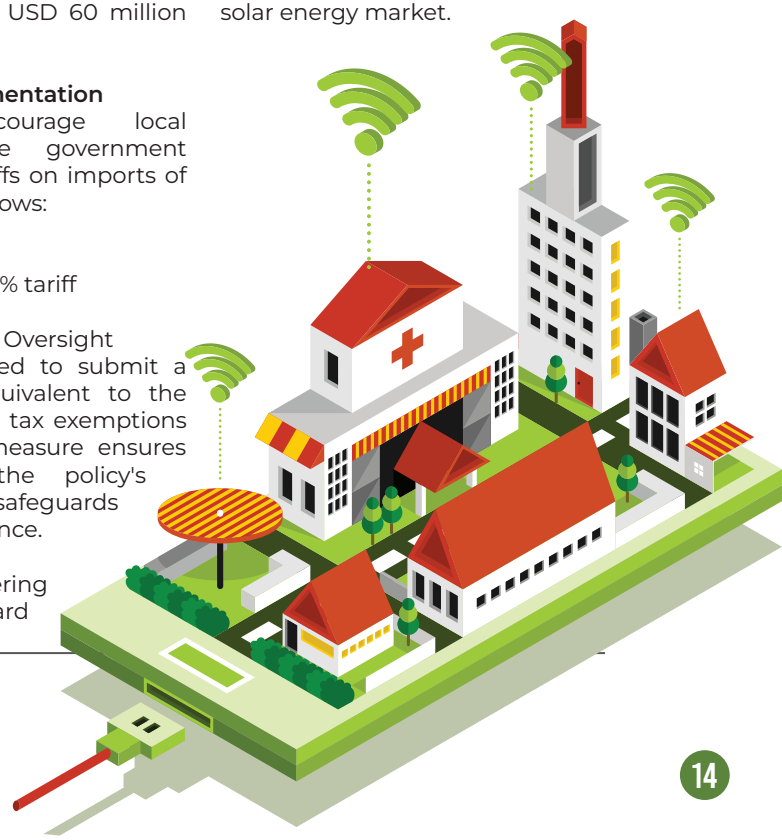
Investment Milestones:
- Year 1: USD 10 million
- Year 2: USD 20 million
- Year 3: USD 30 million
- Year 4: USD 40 million
- Year 5: USD 50 million
- Year 6 to Year 10: USD 60 million annually

Import Tariff Implementation
To further encourage local manufacturing, the government plans to impose tariffs on imports of finished goods as follows:
- Year 1: 5% tariff
- Year 2: 10% tariff
- Year 3 to Year 10: 15% tariff

Implementation and Oversight
Investors are required to submit a bank guarantee equivalent to the amount of tariff and tax exemptions they receive. This measure ensures commitment to the policy's objectives and safeguards against non-compliance.

The Engineering Development Board (EDB) will evaluate manufacturers' business plans, including investment amounts, plant capacity, and localization and export roadmaps. The Federal Board of Revenue (FBR) will determine annual quota allocations, ensuring systematic implementation and monitoring of the policy.

This 10-year policy reflects Pakistan's strategic commitment to fostering a robust domestic solar panel manufacturing industry. By setting clear targets for capacity building, localization, and exports, and by providing structured incentives, the government aims to reduce import dependency, promote sustainable energy solutions, and position Pakistan as a competitive player in the global solar energy market.



GreenTech Companies in Pakistan

GreenTech efforts in Pakistan can be broadly classified into the following categories:

Category	Companies
Activism and Advocacy	Sohni Dharti Climateers, Green Box, Saaf Suthra Shehar
Energy	SkyElectric, EcoEnergy, ezBike, Jolta Electric, Enent, Worldwide Green Tech, GeoAirCon, Jolta Batteries, Women In Energy Pakistan
Pollution, Recycling, and Conservation	Davaam Life, Jaan Pakistan, 3W Systems, TrashIt, Aabshar, Modulus Tech, Bitsym, Greenovation Pak, Clearlife Technologies,
Food and Water	MyWater, Jaan Pakistan, Bondh E Shams, Pak Vitae,
Consulting	EMC Pakistan Pvt. Ltd.
Smart Farming	BaKhabar Kissan, Ricult, Concave AGRI

Sky Electric

Sky Electric provides sustainable energy solutions using advanced solar power systems. The company addresses the nation's energy challenges by harnessing renewable solar energy and integrating it with cutting-edge technology. Sky Electric's Smart Energy Systems are particularly suited to the needs of developing countries like Pakistan, offering a reliable and eco-friendly alternative to conventional power sources. The company's offerings include systems that combine solar energy with grid technology, providing efficient, clean, and affordable energy to residential, commercial, and industrial consumers.

Sky Electric has been praised for its technological advancements, particularly the fact that it was the first to launch smart energy consoles, which offers users complete control over their energy infrastructure through touch-screen interfaces with built-in Wi-Fi and 3G connectivity. The company's efforts to make sustainable energy accessible and affordable have not only earned it a positive reception in Pakistan but have also placed it at the forefront of green technology innovation in the region. Sky Electric has is also currently expanding to other countries, notably Japan.

Sky Electric has made a significant impact on Pakistan's energy landscape, with over 10,000 solar systems installed nationwide. These systems have collectively generated an impressive 554 GWh of solar energy, contributing to a substantial reduction in carbon emissions, equating to approximately 386,000 tons of CO_2.

The company's advanced technology not only offers a cost-effective solution but also demonstrates a strong commitment to environmental sustainability. By offering durable systems with long battery life and smart energy management, Sky Electric continues to lead the way in making clean, renewable energy accessible and affordable for a wide range of consumers across Pakistan.

Primary Products

- **SkyElectric Smart Energy Inverter**
- **SkyElectric 3.0 Advanced Battery Pack**
- **Advanced Touchscreen Energy Console**
- **SkyElectric 3.0 Advanced System Management Device**
- **Solar Panels**
- **SkyElectric SmartFlow™Artificial Intelligence**

I have been using SkyElectric 5 kW Smart Solar System for eighteen months and I am very satisfied with the performance of the system. I have found SkyElectric sales and engineering personnel professional, competent, immensely supportive and responsive to the needs of a customer. I have received excellent technical support and service from SkyElectric. They have never let me down under any circumstances.
– Shahid Latif, Resident, Peshawar

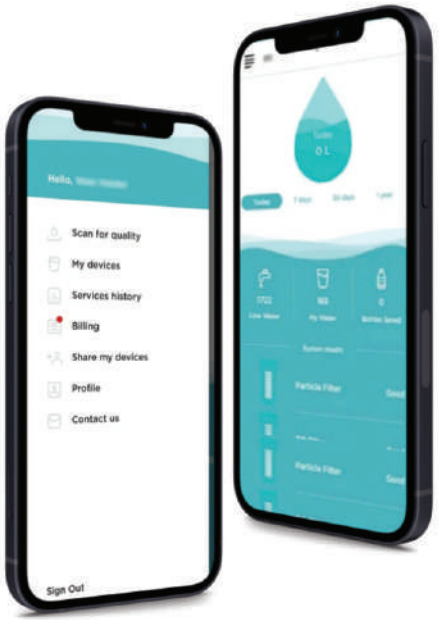
From the day SkyElectric energized my home, I never had to worry about breakdowns or load shedding and I also enjoy the small notifications like 'the grid is off', 'the grid is back' from the Network Operations Center. The app that they have provided for monitoring is excellent. I check my SkyElectric system through the app almost more than 20 times a day and it gives me great satisfaction that I can monitor it from anywhere.
– Naser Pasha, Resident, Islamabad

SkyElectric is not only a name but a brand with good technology and customer service. The technology introduced by SkyElectric supports Net Metering and 24/7 NOC monitoring; which makes it unique from other solar service providers.
– Dr. Fahad, Resident, Lahore

MYWATER

MyWater

MyWater is a leading clean water solutions provider in Pakistan, known for its advanced water purification systems that deliver safe, healthy, and mineral-enriched drinking water. The company uses an 8-stage filtration process, removing contaminants such as dust, bacteria, viruses, and harmful metals, while adding essential minerals to ensure water quality meets international standards. With options for different types of water, including alkaline and spring, MyWater caters to diverse customer needs, including residential, commercial, and industrial use. Their smart, AI-enabled systems offer real-time monitoring and predictive maintenance, making it easy for users to manage water quality through a dedicated mobile app.



MyWater has earned recognition for its technological innovation and commitment to sustainability. Their systems are lab-tested and certified by leading laboratories in Pakistan, the UAE, and the USA, reflecting their adherence to global water quality standards. MyWater's use of NSF-certified filter elements ensures the highest levels of safety and effectiveness. The company has been praised for reducing the environmental impact of bottled water by offering a more sustainable alternative with their bottle-less water purifiers.

In terms of impact, MyWater's systems are designed to handle high levels of total dissolved solids (TDS), converting

water with up to 2000 ppm into safe drinking water with TDS levels between 30 to 150 ppm, which is comparable to natural spring water. These systems have a lifespan of 5-7 years and can be used in various settings, from small offices to larger commercial spaces. The company offers extensive support through a monthly service contract, ensuring long-term reliability and customer satisfaction.

In addition to their technological advancements, MyWater has significantly contributed to environmental sustainability by saving over 7,395,420 plastic bottles through their innovative bottle-less water purifiers. With a focus on providing premium quality water and reducing reliance on plastic waste, MyWater positions itself as a leader in Pakistan's clean water industry.

Primary Products

- **TERRA**
- **NEO**

> *The services and billing department is outstanding and amazing. Would recommend #mywater to my friends and family.*
> *– Muhammad Betul, Customer, 3 months ago*

> *MyWater gives a better alternative to plastic bottles as plastic bottles are not good for health. That's why I recommend MyWater to my friends and family.*
> *– Maheen M. Ansari, Customer, 3 months ago*

Davaam

Davaam Life is an eco-conscious startup focused on transforming retail practices by promoting sustainability. They offer innovative refill and dispensing stations that allow consumers to purchase everyday products like shampoos and detergents without the packaging, encouraging reuse and reduction of plastic waste. By cutting packaging and distribution costs, Davaam Life provides an environmentally friendly and financially viable alternative for both brands and consumers. Their solution is designed to meet sustainability goals while benefiting the planet and communities.

Davaam Life is a recognized leader in sustainability, officially a member of The PREVENT HUB, which fosters constructive exchange among its members. The startup was selected for the Climate Finance Accelerator (CFA) in Pakistan, affirming its focus on people, planet, and profitability. Davaam was among six winners out of 135 proposals from Pakistan in the Climate Launchpad competition, where it won both the Pakistan and the Asia Pacific Region rounds. Davaam was also lauded at Shell Pakistan's 75th anniversary for its innovative model reducing single-use plastic. The startup has received 4 awards in recognition of their contributions to sustainability.

Davaam Life's unique selling proposition is its innovative approach

to reducing plastic waste by enabling consumers to purchase products without the packaging, and thereby promoting sustainability. Davaam Life has been in business for 3 years, during which they have installed 12 refill stations, saving 13,809 plastic bottles. Their efforts have also resulted in a reduction of 1,493 kg of CO2e/kg in their climate footprint.

Primary Products

- **Refill and Dispensing Stations**
- **Reusable Containers**
- **Sustainable Consumer Products**

Jaan Pakistan

Jaan Pakistan is a social startup dedicated to providing affordable energy solutions to underserved communities in Pakistan. Founded in 2014, the organization focuses on improving energy access in rural areas through innovative and sustainable approaches. Committed to social and environmental impact, Jaan Pakistan strives to address energy challenges and enhance the quality of life for its beneficiaries.

Jaan Pakistan was founded in June 2014 and has made significant strides. Endorsed by Nobel Laureate Professor Muhammad Yunus and mentored by seasoned American entrepreneur Doug Richard, Jaan Pakistan has received seed funding from the Rwanga Foundation and was formally incorporated in October 2015. The startup launched its flagship solar cooker in 2016, with a primary focus on indigenizing solar thermal energy technologies and developing new prototypes to address energy challenges in rural Pakistan. Jaan Pakistan secured first prize at the Fifth One Young World Summit in Dublin in October 2014.

Primary Products

- **Clean CookStove Technologies (Solar Cookers)**
- **Supreme Stove**
- **Double Supreme Stove**
- **Heater Series(H1 & H2)**
- **Affordable Energy Solutions**
- **Human-Centered Product Design**
- **Behavior Change Communications**

EcoEnergy

EcoEnergy is a pioneering company focused on delivering innovative and sustainable solar energy solutions globally. Since its inception, EcoEnergy has offered tailored solar solutions that support environmental sustainability and economic growth.

EcoEnergy initially offered two flagship products, namely solar lanterns and solar home systems. They sold 14,000 units of the lanterns but discontinued them to focus on home systems. EocEnergy has installed over 1.2 megawatts of power in the last two years.

Since 2013, EcoEnergy has provided solar energy to over 20,000 customers across Pakistan. From factories, to offices and houses, to rural homes, EcoEnergy has provided a range of high-quality and reliable solutions to its customers. The company also provides dedicated maintenance and cleaning services to ensure solar installations operate at peak performance.

EcoEnergy also views its mission as a social cause. Founder Shazia Khan reports visiting Pakistan often as a child and being haunted by images of poverty and destitution, particularly the sight of poor children on the streets. This personal connection informs the company's projects catering to off-grid rural communities.

Primary Products

- **Solar Power Solutions**
- **Energy Storage Systems**
- **Energy Efficiency Technologies**

Special Services

- **Zia ul Haq & Sons-200 kW installation with Generator Sync(Gadap Town Karachi)**
- **Abdul Hameed Soomro-40 HP Industrial Installation(Thatta Sindh)**
- **Wali Khan -Naval Housing Scheme residential Installation**
- **Abdul Latif-Industrial Installation (Mirpur Bathoro Sindh)**
- **Asif Ali 62 kW Industrial Installation (UmerKot Sindh)**

> *I found EcoEnergy to be extremely reliable and transparent. I highly recommend EcoEnergy for any domestic or commercial solar installation.*
> *– Alishan Samdani, Customer, 10kW system*

> *My electricity bill went from Rs. 30,000 to Rs. 0.*
> *– Saad Amanullah, 10kW System*

3W Systems Private Limited

3W Systems (Pvt.) Ltd. was established in 2005 by a team of professional engineers with expertise in civil, electrical, mechanical, and environmental engineering. The company specializes in water and wastewater treatment, offering comprehensive turnkey solutions, including environmental systems and fire detection and suppression systems.

3W Systems provide services in pipeline engineering, process design, hydraulic system design, and 3D modeling and fabrication of equipment and plants. 3W Systems has in-house fabrication workshops which produce high quality components including clarifiers, tanks, Penstocks and customized wastewater treatment plants. To date they have installed over 44,000 meters of pipelines. Their systems have treated over 184 million cubic meters of wastewater and 368 million cubic meters of drinking water. They provide water treatment plants covering a wide range of options, including reverse osmosis, micro-filtration, boiler feed water treatment, ultraviolet disinfection, ion exchange, demineralization, and water softening, etc.

3W Systems is a PEC-registered engineering organization. The company also has secured ISO 9001, ISO 14001 and ISO 18001 certifications. Their list of clientele includes prominent names including Nestle, Engro, Fauji Fertilizer, and Metro.

Primary Products

- **Water Treatment Solutions**
- **Wastewater Treatment Solutions**
- **Environmental Systems**
- **Fire Detection and Suppression Systems**
- **Pipeline Engineering**
- **Process Design**
- **Hydraulic System Design**
- **3D Modeling of Equipment and Plant**

Special Services

- **Water Waste Treatment Process at Ab Mauri Pakistan**
- **Water Waste Treatment Plant at Chamkani Bus Depot of BRT Peshawar**

SOLAR WATER PROJECT
BONDH E SHAMS

Bondh E Shams

Bondh-E-Shams is a social enterprise focused on providing clean and sustainable water solutions to underserved communities. Their flagship product, the OASIS Box, is a solar-powered water extraction and filtration system designed to deliver safe drinking water in remote and off-grid areas. Bondh-E-Shams aims to tackle the global water crisis by combining innovative technology with a mission-driven approach, bringing clean water to those who need it most.

Bondh E Shams literally translates to 'droplets from the sun'. The company is a charity founded by a 24-year-old Goldman Sachs analyst Hamza Farrukh, who secured a USD 150,000 grant from the bank. The company is committed to bridging the sustainability gap as a key player in the sector of water, sanitation, and hygiene sector. By upholding a firm commitment to the UN Sustainable Development Goals—6 (Clean Water & Sanitation), 5 (Gender Equality), 7 (Affordable and Clean Energy), and 13 (Climate Action)—they strive to make a difference in the lives of those most in need.

The aim of Bondh-E-Shams is to use solar energy to power water pumps that tap into aquifers in rural communities, removing the need for locals to travel long distances to access water for drinking and washing. The Oasis Box is designed to provide drinkable water for a remarkable 25 years. Their efforts have supported 300 community water projects across seven countries, serving an impressive 1,107,045,188 cups of clean water. Through these initiatives, they aim to ensure access to clean water for all, promote gender equality, advance clean energy solutions, and address climate challenges.

Primary Products

- **OASIS Box**

> *The water in our village used to make us sick. But now, we have safe water.*
> *– Ali, Sindh, Pakistan*

> *I like school. Now I no longer have to miss school days to fetch water.*
> *– Mariam, Rohingya Camp, Bangladesh*

> *The introduction of the OASIS box has brought an end to our struggle for water.*
> *– David, Yei City, South Sudan*

EMC Pakistan Pvt. Limited

EMC Pakistan (Pvt.) Limited, founded in 1997 and headquartered in Karachi, is one of Pakistan's leading engineering and environmental consulting firms. The company boasts a team of highly qualified and experienced professionals, including environmentalists, engineers, soil specialists, hydrologists, economists, and architects. EMC specializes in a wide range of services with a particular emphasis on health, safety, and environment (HSE) standards. Their focus is on enhancing HSE performance and aligning with international standards to improve organizational outcomes and environmental stewardship.

Over the years, EMC has collaborated with a variety of government agencies, private sector clients, and international organizations. They have provided services in sectors including transport, textiles, mining, power, oil and gas, and chemicals and pharmaceuticals. They have experience in undertaking studies on environmental management, air quality and noise testing, wastewater treatment, waste management, health and safety trainings, and socio-economic surveys.

EMC Pakistan (Pvt.) Limited stands out in the consulting industry due to its unwavering commitment to client partnership and integrity. Their unique selling proposition is in their proactive approach to cost-saving recommendations. With a stated vision to becoming the top choice for environmental and sustainability consulting, EMC prioritizes delivering the highest quality services at minimal cost while upholding strong professional ethics and core values.

Primary Products

- **Environmental Management**
- **Air Quality and Noise Management**
- **Wastewater Treatment**
- **Waste Management**
- **Environmental Health and Safety Trainings**
- **Socio-economic Surveys**

ezBike

ezBike is revolutionizing transportation in Pakistan with innovative solutions for fleet owners. By transforming traditional petrol motorcycles into efficient electric vehicles, ezBike empowers businesses to cut fuel costs, reduce maintenance expenses, and increase uptime, all while contributing to a greener future. Moreover, as the first electric bike-sharing service in Pakistan, ezBike has successfully raised USD 1 million in pre-seed capital from investors including i2i Ventures, Walled City, and Ground Up.

With the successful launch of Pakistan's first battery swap station network, ezBike has established itself as a leader in the electric mobility space. ezBike's collaboration with TCS Private Limited on Pakistan's largest two-wheeler electrification initiative, along with its partnership with Bahria Town Management to electrify their maintenance fleet highlight the company's pivotal role in driving sustainable transportation in the country.

The numbers speak for themselves: ezBike's electric retrofit kit offers a 50% reduction in upfront investment, making the transition to electric more accessible. The company operates a battery swap network across 40 locations in Islamabad and Rawalpindi. In addition, ezBike's flagship product, the Electron electric scooter, is priced competitively at PKR 225,000 and features a top speed of 65 kph with a range of 75 kilometers on a single charge.

Founded by former investment banker Mohammad Hadi and software executive Ali Moeen, ezBike launched in 2020 and has since onboarded over 100,000 customers through its bike-sharing app in Islamabad. Hadi claims that while Pakistan has 22 million registered motorcycles with 2 million sold each year, the electric vehicles market presents a USD 20 billion opportunity. He believes that ezBike's proprietary solution will allow consumers to purchase electric scooters at 80% of the price of comparable petrol-run motorcycles and operate them for 50% of the cost, which will revolutionize the market.

Primary Products

- **Electric Retrofit Kits:** Convert existing petrol motorcycles to electric, reducing operational costs and environmental impact.
- **Battery Swap Stations:** A network of 40 stations offering quick and convenient battery swaps, minimizing downtime for riders.
- **Electric Scooters:**
  - **The Electron:** A high-performance scooter designed for urban commuters, featuring a 2000-watt motor, LiFePo4 battery, and a range of 75 km.
  - **The Spark:** An affordable option with an 800-watt motor, offering a top speed of 35 kph and a range of up to 50 km.

Jolta Electric

Jolta Electric is Pakistan's first electric vehicle (EV) company, providing environmentally friendly solutions through its advanced EV technology. Jolta Electric focuses on electrifying the country's transportation sector, designing and manufacturing key components for electric vehicle kits tailored to two-wheelers, three-wheelers, and four-wheelers. With over five years of product development experience in China, the company has positioned itself as a leader in the EV market in Pakistan.

Jolta Electric's achievements have not gone unnoticed: as the only authorized EV manufacturer in Pakistan, the company played a pivotal role in shaping the country's EV policy, working closely with the Ministry of Climate Change. The launch of Pakistan's first electric bike by Prime Minister Imran Khan on July 8, 2021, was a significant milestone, with the Prime Minister stating, "Jolta Electric Bike will create a positive impact towards the economy of Pakistan." The Governor of Sindh, Mr. Imran Ismail, further endorsed the company by inaugurating its E-bikes showroom in Karachi, highlighting the federal government's commitment to an eco-friendly future.

Jolta Electric's success has also garnered international attention, with U.S. Consul General William K. Makaneole visiting the company's factory in Lahore to acknowledge its contributions to sustainable transportation. The company has also showcased its achievements at global platforms including the Pakistan Tech Summit in Turkey. To further add to its green credentials, Jolta Electric has also participated in tree plantation drives and sustainability-focused exhibitions like Solar Pakistan 2021.

Jolta Electric offers a range of e-bike models designed to be energy-efficient, with charging times ranging from overnight to just 2.5 hours and a top speed of up to 65 km/h. The bikes can cover distances of up to 100 kilometers on a single charge.

> *Overall I got an excellent experience of riding and charging (as they say in their website). It is fully economical and very light on my pocket.*
> *– Nazakat Hussain, customer*

Primary Products

- **JE-70 D:** This model provides a top speed of 50 km/h on plain roads and covers a distance of 80 km on a full charge.
- **JE-70Li:** Featuring a lithium battery, this bike achieves a top speed of 55-60 km/h and offers a mileage of 80-90 km. Charging time is notably quick at 2.5 hours.
- **JE-100 L:** A versatile option with a top speed of 60-65 km/h and a mileage of 70-80 km. It also charges within 2.5 hours and uses a lithium battery for efficient performance.
- **JE-125 L:** Designed for higher performance, this bike is equipped with a robust motor, capable of reaching top speeds similar to other models, but with enhanced features and durability.
- **JE-Scooty:** A user-friendly option with a top speed of 55 km/h and a mileage of 70-80 km per charge. It charges overnight and uses a dry EV gel battery, making it a practical choice for daily commuting.
- **JE-Sports Bike:** Built for enthusiasts, this bike offers a more dynamic riding experience with advanced features, combining speed, efficiency, and style. It is the flagship model in Jolta's lineup.

trashit

TrashIt

TrashIt is revolutionizing waste management by transforming food waste into high-quality compost and driving the adoption of sustainable practices across communities. Their innovative approach focuses on creating decentralized composting hubs near waste sources, empowering citizens to engage in responsible waste management. By turning waste into value, TrashIt is not only improving environmental health but also promoting organic farming and healthier living spaces.

TrashIt has made significant strides through key partnerships and recognitions. Collaborating with Lucky Core Industries (LCI), they hosted a composting workshop. This event included the launch of a 100% recycled onsite composting system at LCI's head office, engaging employees in zero-waste practices. In another major collaboration with Pak Bio Energy, TrashIt helped inaugurate a composting facility in Jamshoro, which manages 70 kg of organic waste daily. Anusha Fatima, the founder of TrashIt, won the She Loves Tech Pakistan competition, and represented Pakistan at the global finals in Beijing.

TrashIt processes locally sourced organic waste to produce odorless compost, which enhances soil quality, improves water retention, and supports healthy microbial activity. Their "Trash on Wheelz" service ensures efficient waste segregation at the source, promoting ethical recycling practices and contributing to supply chains free of child labour. This service also creates dignified employment opportunities for poor citizens, reflecting TrashIt's commitment to both environmental and social responsibility.

Primary Products

- **Eco-Friendly Composting Systems:** Includes the Khamba for household use.
- **Decentralized Composting Hubs:** Designed for communities and businesses.
- **Workshop Services:** Educational sessions to promote effective waste management.

> *Usually only half of my seed packets used to grow, but after buying seeds and the Eco Khamba from Trash It, my jalapeno plant started flowering a week later!*
> *– Aniqua Ali*

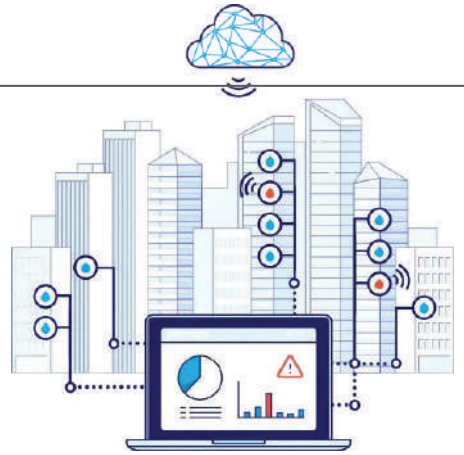
> *Trashit's compost works like a charm! My plant was barren for months, and just a week after adding your compost, it has been blooming! Thank you for this!*
> *– Musfirah Taqdees*

aabshar
The Water Saving Company

Aabshar

Aabshar Solution Pvt. Ltd. is at the forefront of water conservation, delivering solutions that address global water challenges in a sustainable manner. The company boasts an impressive range of products and impactful collaborations geared towards reducing water wastage and enhancing environmental stewardship. Their product line includes nozzles which reduce water consumption by up to 85% without affecting waterflow. Their AI monitoring system provides real-time alerts when leaks occur and can automatically shut off the water supply. Through intelligent monitoring, this system identifies leak sources and waste.

Aabshar has garnered significant recognition for its efforts: the company's collaboration with Bait-Us-Salam Mosque resulted in a substantial 60% reduction in water operational costs. In the healthcare sector, their work with the Pakistan Air Force Headquarters in Islamabad led to a remarkable 85% decrease in water waste within just one day. The company's influence extends to the textile industry as well, where its solutions have helped the US Apparel & Textile Group cut water wastage by 87%. Notably, Aabshar's products have made a significant impact through its association with Saylani Welfare International, where a 92% reduction in water usage was achieved, benefiting the community.



Aabshar Solution Pvt. Ltd. has made a notable impact in water conservation, with a total of 4.3 billion liters of water saved. This achievement has led to the conservation of 1 billion trees and positively impacted 236 million lives. Additionally, the company's efforts have resulted in a reduction of 90 million tons of CO_2 emissions. The company's nozzles are designed to minimize water use by up to 98% while maintaining pressure, contributing to lower electricity bills and improved operational efficiency. With an easy installation process that requires no additional plumbing, Aabshar's solutions offer both practicality and effectiveness.

Primary Products

- **Single Mode Water Nozzle:** Priced at Rs 4,500, this nozzle efficiently reduces water consumption while maintaining optimal pressure.
- **Dual Mode Nozzle:** Available for Rs 5,500, this nozzle features mist and multi-stream modes, achieving up to 98% water savings.
- **Chrome Aerator and Long Spout Neck:** High-quality products designed to enhance faucet performance and conserve water.

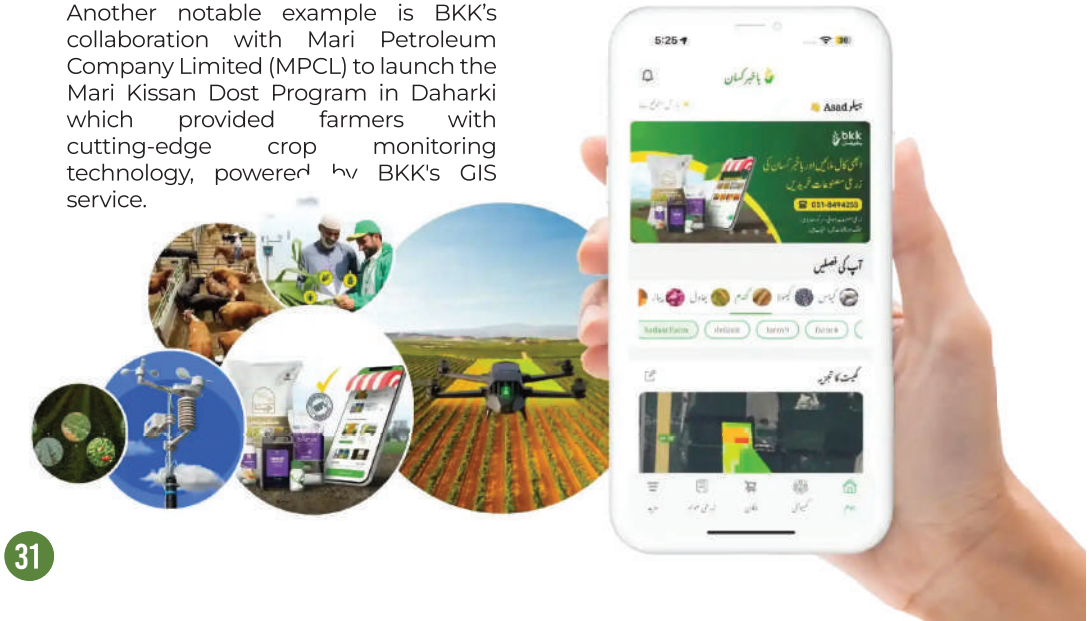
BaKhabar Kisaan

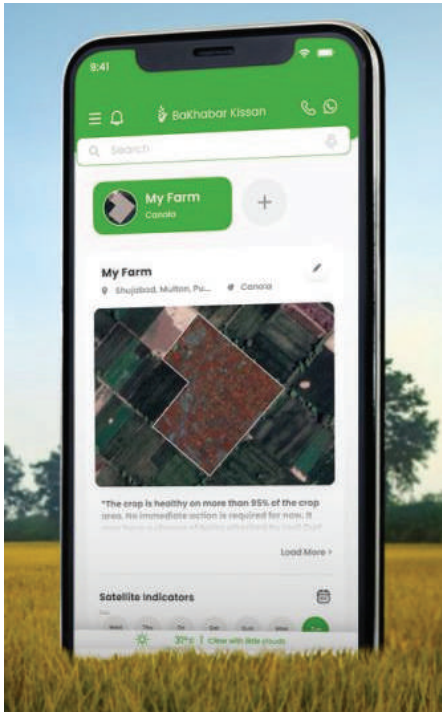
Founded in 2016, BaKhabar Kissan (BKK) has rapidly emerged as one of Pakistan's leading agritech companies, empowering farmers via data-driven decision-making, expert advisories, and comprehensive access to financial and marketplace solutions. By integrating cutting-edge technology into the farming process, BKK is committed to transforming 20 million lives into profitable and sustainable futures.

BaKhabar Kissan has garnered significant recognition for its innovative contributions, notably for their role as a key player in the Pakistan Digital Agriculture Consortium. The company's achievements include a successful climate action project funded by the Global System for Mobile Communications Association, which utilized digital technologies to enhance the resilience of local communities to climate and humanitarian shocks. Another notable example is BKK's collaboration with Mari Petroleum Company Limited (MPCL) to launch the Mari Kissan Dost Program in Daharki which provided farmers with cutting-edge crop monitoring technology, powered by BKK's GIS service.

Success stories highlight BKK's impact, such as the strategic partnership with the Khyber Pakhtunkhwa government to enhance agricultural productivity through the use of weather stations and the BaKhabar Kissan command center. Another prominent project includes collaboration with Mobilink Microfinance Bank Ltd, offering digital financial solutions and round-the-clock advisory to small and medium-scale farmers, which has significantly boosted agricultural output and financial inclusion.

These projects underline BKK's role as a transformative force in the agriculture sector, providing farmers with the tools and knowledge to thrive in a rapidly changing environment. BaKhabar Kissan has made a significant impact, reaching over 25 million individuals across Pakistan, with a robust





subscriber base exceeding 8 million. The company has detailed profiles of over 500,000 farmers, enabling personalized advisory services, and operates 450 weather forecasting stations that provide real-time data to support informed decision-making. BKK's strategic alliances with leading organizations such as HBL, Syngenta Pakistan, and Zong 4G ensure that farmers have access to cutting-edge technologies and financial services. These statistics underscore BKK's comprehensive services, ranging from agriculture and livestock advisory to agro-MET advisories, offering a one-stop solution for all farming needs.

Primary Products

- **Agriculture Advisory:** Customized precision advisories help farmers make well-informed decisions.
- **Livestock Advisory:** Tailored guidance on livestock management, focusing on disease prevention and management.
- **Crop Life Cycle Management:** Connecting farmers with experts for improved crop yield, quality, and quantity.
- **Agro-MET Advisories:** Automated weather stations providing accurate local weather information.
- **Agri Shop:** A one-stop-shop for all farming needs, offering a wide range of products and expert advice.
- **Drone Services:** Advanced drone technology for monitoring crop health and managing irrigation and pest control.
- **Mobile App:** A feature-packed platform offering weather updates, crop and livestock advisory, and disaster management tools.

Green Box

Green Box, based in the UK, is a global transformation lab committed to nurturing environmental sustainability among children and young people. Through imaginative shifts, policy influence, rigorous research, and actionable initiatives at local, regional, and global levels, Green Box is driving the next generation to be active environmental citizens. Founded in 2017 at the Social Venture Weekend at Cambridge Judge Business School, the organization started with a vision to empower young people in high youth bulge countries, such as Pakistan, to contribute to sustainable change.

Since its inception, Green Box has gained recognition for its impactful initiatives. In 2018, the Sustainable Impact Partner Program in Pakistan engaged 200 community members and 1,000 university students in sustainable action. By 2019, Green Box expanded regionally, leading research on youth perceptions of climate change across South Asia through the British Council's Climate Connections Program. Notable successes include the Young Climate Resilience Force, empowering over 1,500 youth to lead climate projects, and the ClimateClick photo journaling study, capturing global youth responses to climate impacts. Specific projects such as the COP 101 You[th] Pocket Kit, developed with YOUNGO, Asian Development Bank, and United Nations Framework Convention on Climate Change, and the Sustainable Impact fellowship programs (2019-2021) in Pakistan further underscore their commitment to youth-led climate action. Additionally, Green Box was a key participant in the 2022 Springboard Amplifier Programme at UNDP's Asia Pacific Regional Office and is part of the Global Science Diplomacy for the Environment Advisory Committee (2022-2024).

Green Box has made a significant impact, training over 5,000 young children on a simulation-based curriculum powered by MIT, with 60% of these participants hailing from vulnerable youth groups. Over 2019 to 2021, their Sustainable Impact fellowship programs involved 1,500 young people, leading to the execution of 100 youth-led community projects that engaged 12,500 citizens in climate resilience and environmental stewardship. Their influence extends beyond Pakistan, with major contributions to youth climate action in Sri Lanka, Bangladesh, and Afghanistan through partnerships with organizations like the British Council and UNDP.

Primary Products

- **Sustainability Education:** Green Box provides comprehensive educational programs aimed at building knowledge, skills, and attitudes necessary for sustainable development.
- **Knowledge Management:** They offer platforms and tools for effective information sharing and capacity building among young environmental leaders.
- **Policy and Research:** Green Box drives evidence-based research and policy influence, ensuring that youth voices are central to environmental governance.

ModulusTech

ModulsTech innovates in housing technology for social and environmental impact. Whereas 1.6 billion people in the world today lack adequate housing, buildings account for nearly 40% of global energy consumption. Considering the imminent threat of climate change and rapid growth in population, the way we live today needs to change. That is what makes ModulusTech's housing technology a powerful antidote – reducing CO2 emissions to a mere fraction of that of conventional houses.

ModulusTech started its journey by building self-sustaining communities for the most underserved segments of society, providing not just homes but better health, stability, and economic opportunities. Inhabitants are also provided the means to live their day to day lives with access to renewable sources of energy and clean water – forming a neutral carbon footprint.

ModulusTech has been acknowledged for its revolutionary flat-pack modular housing model, which provides affordable, eco-friendly homes that are quick to assemble and have a minimal carbon footprint. The company's founders earned recognition in the Forbes 30 Under 30 Asia list, which is a notable achievement.

The company has been involved in pioneering projects such as developing Pakistan's first net-zero housing community, which was part of the 2021 UN Climate Change Conference (COP26). This project alone has saved over 5 million kilograms of CO2 emissions, highlighting its impact on environmental sustainability.

The future as ModulusTech envisages is one where housing is accessible and sustainable for all, one where the greener choice is more affordable, and the way we live does not harm the planet.

Primary Products

- **Fast-track housing**
- **Flat-pack Housing**
- **Modular Construction**
- **Net Zero Buildings**
- **Low Cost Housing**
- **Tiny Housing**
- **Sustainability**
- **ADUs**

> *A true depiction of Pakistan's survivalist mindset. This nation should feel honored to have a youth like you. Everyone has a million of brilliant ideas but true success only comes when you stick with an idea patiently and make it work, iterating it to a level where it is a mix between what was "your dream" and what the "market wants". Keep it up guys and Inshallah with a youth like you this nation will never fail.*
> ***– Mohsin Mahmood, Facebook review***

Bitsym Pvt. Ltd.

Bitsym Pvt. Ltd. is an Internet of Things company specializing in solutions that seamlessly connect sensing devices. Bitsym's core strength lies in wireless sensing, transmission and analytics in an integrated end-to-end form factor for target verticals. Bitsym's products include environment-friendly solutions, notably an AI-guided HVAC optimization solution. Bitsym's team specializes in device design, embedded programming, communication, software-designed networks, data management, analytics and actuation. Bitsym take IoT concepts and provide ready fully functional prototypes for targeted verticals and markets.

Their flagship products include BitPredict, a solution that predicts equipment failures by using data from the sensors and logs, enabling proactive maintenance, and optimizing resource allocation. Another product is the HVAC System Health Monitoring solution which utilizes machine learning to model behavior and compares predicted compressor power consumption with actual consumption and generates alerts for any deviations.

Bitsym has signed a licensing and partnership agreement with National University of Sciences and Technology (NUST) for the joint manufacturing and marketing of devices and solutions at Bitsym's industrial manufacturing facility in Hattar. The company has also signed a memorandum of understanding with Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology to work on joint ventures. Bitsym has also joined the VMware Technology Alliance Partner program and is collaborating with Allied Telesis Labs in New Zealand

Primary Products

- **Telecommunication and Networks solutions**
- **Artificial Intelligence solutions**
- **Digital Security solutions**
- **Semi-Conductors**
- **Software Development**

Bitsym Pvt. Ltd.

Ricult is an AgriTech company dedicated to empowering smallholder farmers and promoting sustainable agricultural practices across Thailand and Pakistan. With a network of over 800,000 farmers, Ricult employs AI-based tools and satellite monitoring to provide real-time tracking and transparency in agricultural activities. Their solutions are designed to reduce carbon emissions, particularly in rice cultivation, which is responsible for 12% of global emissions—four times more than the aviation industry. Ricult's platforms facilitate carbon credit generation and compliance with international regulations, enhancing transparency for carbon investors and project developers.

Key products from Ricult include the Ricult X Dashboard, an AI-enabled platform that offers automated analytics, deforestation detection, and compliance reports tailored for industries such as rubber and palm oil. This solution integrates satellite data to track supply chains and ensure compliance with environmental regulations, mitigating associated risks. Additionally, Ricult's API allows seamless integration into existing business systems, simplifying regulatory adherence and promoting sustainability.

Ricult also provides tools like the Ricult Farmer App, which offers free weather data, farm health monitoring, and advisory services through satellite imagery. The Ricult Agent App collects on-the-ground data from distributors and buyers, enabling comprehensive traceability of commodities. These tools, combined with Ricult's AI-powered platforms, support smallholder farmers by enhancing financial access and streamlining sustainable farming practices.

Among its achievements, Ricult has partnered with Jazz in Pakistan to extend its farm management platform to over 100,000 users. In Thailand, the company collaborates with ICP Ladda to pilot eCommerce solutions for farm inputs and digital crop insurance. Ricult has been recognized with the MIT Solve Award for its innovative contributions to agriculture. Their Crop Scan technology uses satellite imagery and deep learning to classify crops, estimate harvests, and track growth stages with over 90% accuracy. Advanced monitoring tools such as Field Boundary Detection, Crop Rotation Detection, and Rice AWD Detection help track sustainable practices in rice fields. Ricult's financial solutions also use agronomy and profile data to predict farmer affordability, improving risk management and providing tailored financial products. These solutions have supported 587,833 farmers and analyzed over 5 million acres, contributing USD 500,000 in financial aid.

PAK VITAE

Pak Vitae is an innovative company pioneering indigenous water purification solutions to clean drinking water of water-borne bacteria, viruses and contaminants in developing countries. The company has formed partnerships with significant organizations, including microfinance institutions and NGOs, to scale their operations. These partnerships suggest growth in both outreach and operational scale as they work towards creating "50,000 water-preneurs" across Pakistan.

Founded by Arslan Ahmad, Shayan Sohail and Hafiz Usama Tanveer, Pak Vitae developed a low-cost, membrane-based solution that requires no electricity or chemical cleaning. It can be used as a filter attached to a faucet. To date this device has helped about 10,000 people. The team is planning to expand its solution into India, Afghanistan, Sri Lanka and Bangladesh as well as African countries.

PakVitae has been recognized for its contributions to environmental sustainability, particularly during global events, such as the 2021 United Nations Climate Change Conference (COP26). The founders of PakVitae have been featured in the prestigious Forbes 30 Under 30 Asia list, which recognizes young leaders and innovators in various fields. PakVitae also won the regional HULT Prize in 2018 for their water purification model, which is capable of cleaning 400,000

liters of water and removing 99.99% of contaminants. This accomplishment placed them among the top startups in the global competition and allowed them to participate in the Grand Finale.

PakVitae has formed partnerships with several key organizations, including NGOs, government bodies, and microfinance institutions like Akuwat Foundation and Finca Microfinance. These collaborations aim to create widespread access to clean drinking water across Pakistan, particularly in rural and underserved areas

Primary Products

- **Water purification**

Enent

Enent is a clean-tech electronics startup dedicated to designing innovative products that reduce energy waste. Their groundbreaking Intellica-03 Phase Load Balancer is a major advancement in energy efficiency, targeting load unbalancing—a common issue that causes power loss and higher electricity bills.

Enent's work has been recognized by multiple entities, including the National University of Sciences and Technology, TIP, Shell, and P@SHA. The company secured first prize at the Prime Minister's National Innovation Awards in 2023. They were regional winners of Pakistan Startup Cup in 2022. Enent was also a winner at the Shell Tameer awards in 2021 in the Clean Energy Solutions Category. Enent recently secured a groundbreaking deal at Shark Tank Pakistan exceeding USD 200,000 for 25% equity and 30% royalty.

By intelligently balancing loads across all three phases, the Intellica-03 optimizes power distribution, reducing electricity costs and minimizing power loss by up to 20%. This device comprises solid-state switching modules, ensuring a long-life design, in compliance with IEEE standards 446-1995 and 1100-1999, and ensuring the protection of all devices. This eco-friendly solution also has the potential to annually cut CO2 emissions by 1,600 tons,

equivalent to powering an additional 400,000 homes, making Enent a leader in promoting a greener, more sustainable future.

Primary Products

- **Intellica-03 Phase Load Balancer**

Greenovation Pak

Greenovation is Pakistan's first plastic waste recycling company, specializing in converting plastic into Liquefied Petroleum Gas (LPG). Through this innovative process, the company aims not only to clean waste from Pakistan but also to help the country meet its current energy demands. A distinctive aspect of Greenovation's approach is the production of LPG by recycling plastic waste rather than extracting it from the earth. Given the global issue of plastic waste, the potential for Greenovation to expand internationally is significant, particularly in third-world countries.

The company started its plastic waste recycling operations in Khyber Pukhtunkhwa and in 2024 expanded to Punjab. Greenovation is supported by SEED Ventures. In 2019, Greenovation PK gained international recognition by securing a position among the top ten innovators in the Shell LiveWIRE Top Ten Innovators Awards. In 2023, the company was honoured with the prestigious Prime Minister National Innovation Award.

Greenovation PK is committed to reducing landfills in Pakistan and restoring the country's natural beauty through environmentally friendly solutions. The company's mission is to tackle pollution and provide feasible fuel alternatives by utilizing plastic waste as a raw material for LPG production.

Primary Products

- **Plastic Waste Reduction LPG Supply to households**
- **Glass/Paper Recycling**
- **Thermal Insulations**
- **In-House Industrial Plants**
- **Capacity Building**

Worldwide Green Tech Pvt Ltd

Worldwide Green Tech Pvt Ltd, based in Islamabad, Pakistan, offers state-of-the-art technologies. It provides services in healthcare, renewable energy, telecom, IT networks, cybersecurity turnkey solutions, AI, IoT, and smart city technologies. At the core of Worldwide Green Tech's mission is the development and implementation of eco-friendly innovations aimed at reducing carbon footprints and promoting environmental sustainability.

The company has executed a wide range of projects across various sectors. The founder of Worldwide Green Tech is a former Siemens executive with 17 years of experience in mega telecom and infrastructure projects in the Middle East and Asia region. Key contributions include solar, wind, waste-to-energy, and hydro power solutions. The company's solar plants are designed to generate electricity 24/7, utilizing efficient energy storage systems that eliminate the need for water, steam, oils, or molten salts.

Worldwide Green Tech is also developing Ultra-Fast Carbon Battery Technology solutions to enhance energy conversion, storage, transport, and efficiency. This approach not only improves performance but also minimizes environmental impact by promoting the reuse, recovery, and recycling of materials. The company has also introduced technologies that convert municipal solid waste into valuable renewable energy products such as pellets, fluff, electricity, green diesel, and green jet fuel. This process effectively reduces landfill usage, lowers greenhouse gas emissions, and transforms waste management from a cost-intensive process into a profitable, eco-friendly operation.

Through these initiatives, Worldwide Green Tech Pvt. Ltd is playing a pivotal role in transforming Pakistan's energy landscape, fostering sustainable practices, and positioning the country as a regional leader in green technology and environmental stewardship.

TALK TO US

Do you run a business in the GreenTech industry?

Get in touch with your details now at

mkt@pseb.org.pk

and we'll take it from there.

Also email us for any comments, suggestions or errors in this whitepaper.

For more information on registered companies, please visit

https://techdestination.com

About this Industry Roundup

Pakistan Software Export Board developed this paper by hiring services of independent consulting firms to prepare this roundup on Pakistan's GreenTech sector. The paper focuses on Pakistan-based companies in this vertical and apprises the reader of the expertise available in this domain.

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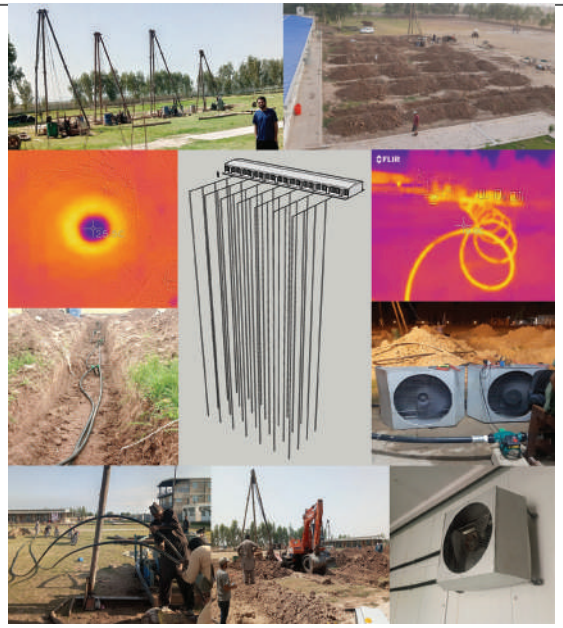
GEOAIRCON

GeoAirCon is the pioneer of ground-sourced climate control technology, or geothermal technology, in Pakistan. The company utilizes temperate underground temperatures to significantly reduce climate control and air-conditioning costs by 35-75% across industrial, commercial, residential, and agricultural sectors. GeoAirCon's indigenously developed low-cost heat exchange technology has gained recognition both nationally and internationally.

GeoAirCon specializes in geothermal air-conditioning systems that utilize a network of underground pipes filled with fluid. These systems transfer heat between buildings and the Earth, providing cooling during summer and heating in winter. Installed at depths of 8 to 12 feet, where temperatures consistently range between 21°C and 25°C, these systems can maintain comfortable indoor climates efficiently. GeoAirCon's solutions are reported to be twice as efficient as the most advanced conventional air-conditioning units.

Since its inception, GeoAirCon has successfully implemented its geothermal systems in 12 buildings across Pakistan, showcasing the practicality and effectiveness of their technology. In recognition of their innovative approach to sustainable cooling, GeoAirCon was honored as



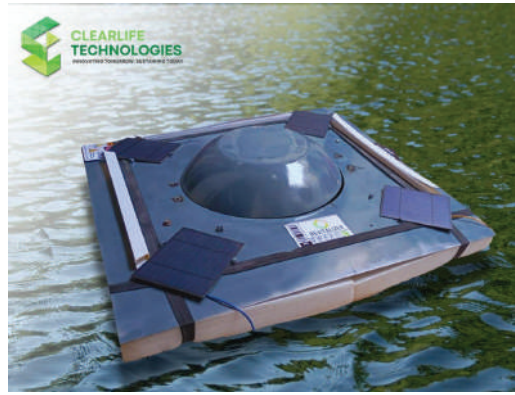
the runner-up for the 2021 Ashden Award for Cooling in Informal Settlements. GeoAirCon has also participated in the Shell Tameer Awards and the Climate Launchpad Competition.

GeoAirCon's geothermal systems significantly reduce reliance on traditional air-conditioning units, which are major contributors to greenhouse gas emissions. By decreasing energy consumption and minimizing the use of harmful refrigerants, their solutions offer an eco-friendly alternative that aligns with global efforts to combat climate change. Moreover, the affordability of their systems, with installation costs ranging from USD 260-460, makes sustainable cooling accessible to a broader population, thereby promoting environmental responsibility on a larger scale.

Clearlife Technologies

Clearlife Technologies, founded by Amman Khokhar and Fraz Nayyar, is at the forefront of sustainable wastewater management. The company employs cutting-edge technologies for wastewater treatment, including membrane- based separation methods like reverse osmosis, bioelectrochemical systems such as microbial fuel cells, and nanomaterial-based processes. These approaches ensure efficient and effective treatment of industrial wastewater, transforming it into a precious resource.

Among its many accomplishments, ClearLife Technologies, has developed an innovative prototype, Revitalizer, a floating device adorned with solar panels. As this device floats and moves on the surface of the water, it purifies it, leaving cleaner water behind.



Clearlife's team of experts collaborates closely with clients to design customized wastewater treatment systems tailored to specific industrial needs, ensuring optimal performance and compliance with environmental standards. The company has recently started to expand operations into the Middle East region, advocating global solutions to combat water scarcity.

Primary Products

- **Wastewater Treatment**
- **Advanced Treatment solutions**
- **Research and development on water treatment projects**
- **Consultation and project design**

Concave AGRI

Concave AGRI is an agritech company in Pakistan dedicated to transforming the agricultural sector through the integration of advanced technologies and sustainable practices. The company's core mission is to enhance precision farming, empower farmers, and build a prosperous and sustainable agricultural ecosystem. Their services include real-time farming advisory, data analytics, climate action initiatives, and a dedicated platform called Kissan Dukan, which provides farmers with essential agricultural products and services. With a focus on innovation and sustainability, Concave AGRI plays a pivotal role in modernizing Pakistan's agriculture industry.

The company has earned notable recognition for its contributions to the agricultural sector. In October 2023, Concave AGRI received the P@sha Award for Best in Agricultural Services (Inclusion & Community), celebrating their efforts to improve farming practices and empower rural communities. Their innovative approach to addressing the challenges faced by farmers has positioned them as a leader in the agritech space in Pakistan.

Concave AGRI's impact is reflected in its impressive reach and results. With over 500,000 farmers supported through their platforms and services, the company helps improve agricultural productivity, resource efficiency, and sustainability. Their Kissan Dukan platform serves as a one-stop shop for farming inputs, while their AgriSense platform offers data-driven insights that enable informed decision-making. Additionally, their ClimateCare initiative focuses on mitigating the effects of climate change by promoting sustainable farming practices. These efforts, combined with strategic partnerships, ensure that Concave AGRI continues to deliver innovative solutions to the agricultural sector.

Concave AGRI has forged key partnerships to advance its mission. In April 2024, they collaborated with Meskay & Femtee Trading Company to bring advanced Kubota agricultural machinery to Pakistan, helping farmers access state-of-the-art farming equipment. In June 2024, the company partnered with JazzCash to enhance financial inclusion for farmers, ensuring better access to financial tools and resources. Additionally, their partnership with Bank Al Habib in January 2024 focused on empowering smallholder farmers with financial support and resource accessibility. These collaborations reflect Concave AGRI's commitment to fostering innovation and growth in the agricultural ecosystem.

Jolta Batteries Pvt Ltd

Jolta Batteries Pvt Ltd, an ISO-certified company, specializes in the manufacturing of advanced graphene supercapacitor batteries and energy storage solutions. With over a decade of experience since its establishment in 2012, Jolta has been instrumental in serving diverse sectors, including automotive, industrial, consumer electronics, telecommunications, and transportation.

Jolta offers a range of high-capacity supercapacitor cells, such as the 3000F 2.7V and 100,000F 2.7V models, known for their rapid charging capabilities, extended lifespan, and exceptional performance. The company provides Lithium Iron Phosphate (LiFePO4) battery systems in various configurations, including 12V, 24V, 48V, and 51.2V modules, designed for applications like solar energy storage and wind energy systems. Jolta's product lineup encompasses energy storage solutions for forklifts, golf carts, solar street lights, and microgrids, catering to a wide array of industrial and commercial needs.

In 2022, Jolta Batteries entered into an exclusive and ambitious partnership with Energy and Automation (ENA), a subsidiary of Jaffer Business Systems (JBS). This collaboration, potentially valued at USD 35 million, aims to deliver cutting-edge supercapacitor energy storage solutions to Pakistan's

telecom and banking sectors. This initiative is poised to revolutionize the local energy storage industry, addressing the needs of approximately 50,000 telecom towers and over 30,000 bank branches nationwide.

The company has earned ISO9001, ISO45001, and ISO14001 certifications and serves over 50 global customers across five continents. Jolta's clientele includes industry giants such as PTCL, Toyota, and Jacobs University, reflecting its global reach and trusted partnerships. The company's energy storage systems are designed to integrate seamlessly with renewable energy sources, such as solar and wind, facilitating efficient and sustainable power solutions. By focusing on Graphene Supercapacitor technology, Jolta offers energy storage solutions that are not only efficient but also environmentally friendly, contributing to a reduction in carbon footprint and promoting cleaner energy alternatives.

Primary Products

- **Motor Vehicle Manufacturing**
- **Electric Vehicles, Telecom, Solar & Off Grid Energy Storage, Electric Tools & Industrial Usage**

Sohni Dharti Climateers

Sohni Dharti is a dynamic digital platform focused on raising awareness and fostering community engagement for environmental protection in Pakistan. Climate change poses significant threats and Sohni Dharti is dedicated to highlighting these issues and educating the public on actionable steps to mitigate environmental damage. The platform encourages the public to unite for the protection of Pakistan's environment and to make impactful changes through collective efforts.

Supported by an Australia Awards alumni grant, Sohni Dharti leverages the expertise and networks of Australia Awards alumni to address climate challenges and promote sustainable development. The platform connects a diverse audience, including families, friends, and colleagues, through social media engagement. By providing educational resources and practical tips, Sohni Dharti empowers individuals to contribute to environmental preservation and climate action in Pakistan.

Leveraging social media platforms like Instagram and Facebook, Sohni Dharti Climateers disseminates information on climate change, sustainable practices, and environmental conservation. The organization also orchestrates various events, including digital competitions and art contests, to inspire proactive participation in environmental initiatives.

For instance, in collaboration with the Independent Power Producers Association (IPPA) and Epiphany, Sohni Dharti Climateers organized a climate conference titled "From Advocacy to Action: Sohni Dharti Digital Competition." This event encouraged participants to present actionable solutions for climate change mitigation, attracting over 100 students, teachers, and young professionals. Partnering with Roshni Association, the organization co-hosted an online art competition aimed at engaging youth in environmental discourse through creative expression.

Primary Products

- **Seminars**
- **Conferences**
- **Advocacy and outreach**
- **Competitions**

> *When we started Sohni Dharti Climateers, we didn't realise the phenomenal impact that we may be able to create with this campaign... We have been able to highlight the importance and criticality of this issue which is actually encouraging people to start protecting the environment.*
> *– Samar, CEO Sohni Dharti Climaaters*

Women in Energy Pakistan

Women in Energy Pakistan (WIE) is a pioneering organization working to increase female representation in the energy sector of Pakistan. It serves as a professional network supporting over 500 women professionals through advocacy, mentorship, and networking opportunities. The organization aims to bridge the gender gap in an industry traditionally dominated by men, providing a platform for women to excel in technical and leadership roles within the energy and power sectors. WIE has also done considerable work in energy conservation.

WIE conducts comprehensive assessments of energy usage within buildings to identify inefficiencies and recommend actionable solutions, aiming to reduce consumption without disrupting daily operations. The organization assists in forming dedicated teams within client organizations to monitor and execute tailored energy efficiency plans, ensuring active participation and successful outcomes. WIE also offers consultancy and support for the installation of solar and wind energy systems, guiding clients from procurement to maintenance to promote the adoption of clean energy technologies. Recognizing the importance of education, WIE provides training programs that equip employees with the knowledge and skills necessary to implement energy conservation practices both at work and home.

Nameerah Hameed founded Women in Energy with a mission "to disrupt the traditional mindset that plagues the male-dominated energy and power sector in Pakistan" by building a strong network of female experts. The organization started with 20 women in 2018. It now has over 100 members, comprising female managers, policymakers, economists, engineers, academics and climate experts.

The organization maintains an active presence in 13 institutions of higher education across Pakistan and has conducted STEM and game-based learning sessions for over 500 female students in cities like Peshawar and Quetta. Furthermore, WIE's digital skills mentorship program has successfully paired young women with experienced mentors, leading to immediate opportunities in internships and freelance jobs. The organization's efforts have been crucial in highlighting the importance of diversity and inclusion in driving innovation and performance in Pakistan's energy sector as well as helping energy conservation efforts.

Saaf Suthra Shehar

Saaf Suthra Sheher (SSS) is a trailblazing social initiative aimed at transforming urban areas in Pakistan into cleaner, healthier, and more sustainable environments. This program focuses on addressing urban sanitation challenges through innovative waste management solutions, community engagement, and public education. By promoting the principles of cleanliness and responsible waste disposal, Saaf Suthra Sheher seeks to improve the quality of life for urban residents and foster a culture of environmental stewardship.

Saaf Suthra Sheher has received considerable recognition for its impactful contributions. The initiative has been acknowledged by local governments and international organizations. Saaf Suthra Sheher has partnered with over 25 entities in Islamabad to help them responsibly manage their waste, including hotels, schools, offices and embassies across the city. Examples include the Belgian Embassy, German Embassy, European Union Delegation, and Telenor.

Saaf Suthra Shehar also launched "Pappu Recycles," a program designed to integrate recycling into daily life by collaborating with citizens. This initiative provides households and businesses with color-coded bins for segregating waste into categories such as paper, plastic, metal, glass,

and Tetra Pak. The collected recyclables are then processed and redirected into the production cycle, minimizing landfill usage. In another significant collaboration with PepsiCo Pakistan, Saaf Suthra Shehar worked to facilitate plastic waste recycling in Islamabad and Rawalpindi. This program incentivizes citizens to exchange plastic bottles for free refills of Aquafina water, promoting responsible recycling habits.

Notably, Saaf Suthra Sheher has recycled 350,000 kilograms of waste, saved 4,165 trees, conserved 980 megawatts of energy, and preserved 6.5 million liters of water. Through its educational outreach, Saaf Suthra Sheher has reached out to many urban residents, promoting the values of cleanliness and environmental responsibility. The program's grassroots approach, combined with its innovative solutions, has made it a model for urban sanitation and sustainability in Pakistan.

Primary Products

- **Pappu Recycles:** an initiative conceived and founded by Saaf Suthra Sheher, to mainstream recycling into the society, by working together with citizens, especially the youth and the conscious.

Tesla Industries

Tesla Industries, founded by Aamir Hussain in 1992, has been a leading name in the production and supply of high-tech equipment and safety devices across Pakistan for over 30 years. Specializing in CNG equipment, electrical controls, and regulation devices, the company has grown its footprint to more than 30 cities domestically and is rapidly expanding its export markets globally. With a strong focus on innovation and reliability, Tesla is the largest manufacturer of CNG products in Pakistan, holding certifications from the British Electrotechnical Approvals Board and British Gas. The company maintains a robust engineering and manufacturing setup designed for continuous product improvement, adhering to international standards including ISO 9001:2000 and NFPA-58.

Tesla Industries produces a wide range of high-quality products, including flexible hoses, electric heating elements, steam-type thermostats, and advanced CNG equipment. Their state-of-the-art CNG and LPG dispensers feature innovative technologies like LCD touchscreens and sophisticated mass flow meters for enhanced operational efficiency and accuracy. Tesla's commitment to energy efficiency extends to their hydraulic CNG compressors, developed in collaboration with O'Green Compressors, USA, which are far more environmentally friendly than conventional models. The company has also entered into key partnerships with global leaders such as Kioshi Cylinders from Argentina to bring cutting-edge CNG solutions to the Pakistani market.

Beyond its products, Tesla provides extensive after-sales service and warranties, backed by a robust network of service centers across Pakistan. With a turnover exceeding $10 million in recent years, Tesla continues to innovate and expand its product offerings. The company's ongoing research and development efforts, including digital priority fill panels and CNG boosters, position Tesla as a technological leader in the energy and transportation sectors. Tesla is dedicated to reducing foreign exchange reliance and creating local employment through skill development and indigenization of CNG products.

Primary Products

- **CNG Compressors, Kits, Dispensers, and Digital Priority Fill Panels**
- **Flexible hoses with ancillary parts for domestic and industrial applications (BS 331 standards certified by British Gas).**
- **LPG Dispensers and Conversion Kits**
- **CNG/LPG Conversion Kits**
- **Kioshi Cylinders for vehicles and storage, tested and approved by Powertech Labs, Canada.**