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EDITORIAL

A Tribute to the Engineers Quietly Building Pakistan From the Inside

No one names a child after the engineer who kept the turbines turning through a hundred summers of Tarbela, or the lineman who climbed a pole in a thunderstorm so a hospital ward wouldn't lose power. This is for them.

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Introduction

Tarbela Dam has been holding back the Indus since 1976 — the largest earth-filled dam on earth, 148 metres high, 2.7 kilometres wide, sending 4,888 megawatts into the national grid and, since it first closed its gates, releasing more than 419 million acre-feet of water onto the fields that feed the country. Nobody who drinks a glass of water grown from Punjab's canals or switches on a fan in a Karachi summer thinks about the men who poured that concrete, calibrated those turbines, or have spent five decades since walking its tunnels at 2 a.m. checking for the hairline crack that never comes because they never stopped checking. This is an editorial about them — and the tens of thousands like them, in generating stations and telecom exchanges and water filtration plants and server rooms across the country, whose names will never appear on a plaque.

Pakistan's engineers are more often written about for leaving than for staying. This magazine has run its share of those stories — the ones about the thousands who board flights to Dubai and Toronto and Riyadh every year, the salary charts, the brain-drain statistics. Those stories matter and deserve to keep being told. But they leave a quieter, larger group out of the frame entirely: the engineers who stayed, or who never seriously considered leaving, and who have spent careers making sure the lights come back on, the water keeps flowing, the bridge holds, and the network stays up — usually invisibly, always without applause, for a country that rarely stops to say thank you.

> ***"Nobody names a child after the engineer who kept the turbines turning through a hundred summers. But somewhere tonight, one of them is checking a gauge by torchlight so that a hospital doesn't lose power."***

The Invisible Infrastructure of Ordinary Life

Consider what a single ordinary day in Pakistan actually asks of its engineers. A power systems engineer at a WAPDA grid station has to balance load across a network that swings wildly between a 45-degree June afternoon and a foggy January night, often with equipment decades older than the demand it now carries. A telecom engineer has to keep a tower running through load-shedding, monsoon flooding, and the kind of remote terrain that makes a routine maintenance visit a half-day trek. A structural engineer signing off on a new flyover in Lahore

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or a housing block in Karachi is making a decision that will bear real weight — sometimes literally — for the next fifty years, usually for a fraction of what the same calculation would earn abroad.

None of this is glamorous work, and almost none of it is visible unless it fails. A functioning grid produces no headlines; a blackout does. A dam that holds produces no news cycle; a breach would dominate every channel for a week. This is the peculiar, thankless nature of infrastructure engineering everywhere, but it is sharper in Pakistan, where the margin for error is thinner, the equipment is often older, the budgets are tighter, and the engineer on call knows that if something breaks at 3 a.m., it is their name on the maintenance log and their judgment that decides whether a city wakes up to power or to darkness.

What Devotion Actually Costs

Talk to enough of these engineers and a pattern emerges that no salary survey captures. A grid station supervisor with thirty years of service describes knowing every hum and vibration of his substation the way a doctor knows a longtime patient's heartbeat — and describes, too, the particular loneliness of a 2 a.m. fault call that no one outside his shift will ever hear about, resolved and forgotten by the time the city wakes. A water treatment engineer in a mid-sized district talks about the pride of a filtration plant that hasn't missed a supply cycle in years, run on a maintenance budget that would embarrass a private company a tenth its size. None of them describe what they do as heroic. They describe it as the job. That modesty is precisely what has let their contribution go unnoticed for so long.

It is worth naming what that modesty costs them. Pay that has not kept pace with inflation for years running. Careers built entirely domestically while peers who left send back photos of a different life. Recognition that, when it comes at all, arrives as a retirement clock and a departmental tea rather than anything resembling public gratitude. And still, every monsoon season, every heatwave, every festival that spikes demand past what the grid was designed for, this quiet workforce shows up, checks the gauges, and keeps the country's most basic promises to itself — that the water will run, the power will hold, and the roads will bear the weight put on them.

What We Owe Them

This magazine will keep writing about brain drain, about salary freezes, about the policies that push talented people toward departure gates. Those pieces are necessary and this one changes nothing about their urgency. But a country's engineering story is not only the story of who leaves. It is also the story of the substation supervisor who has never missed a shift in a decade, the young civil engineer choosing to build low-cost housing in a flood-prone district instead of chasing a Gulf contract, the telecom technician who treats a rural tower's uptime as a point of personal honour. They are not staying because no one offered them a way out. Many of them could leave tomorrow. They are staying, in some quiet and rarely articulated way, because the work matters to them, and because somebody has to.

What they are owed is not complicated. Pay that reflects the responsibility they carry. Budgets that let them maintain infrastructure properly instead of firefighting its failures. And, in the smaller currency that costs a country nothing to spend, acknowledgment — the simple, overdue act of naming the fact that Pakistan runs, every single day, on the competence and quiet stubbornness of people whose names most of us will never learn. Tarbela's turbines have turned for fifty years without asking for credit. The people who kept them turning have earned some.

About the Author

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