

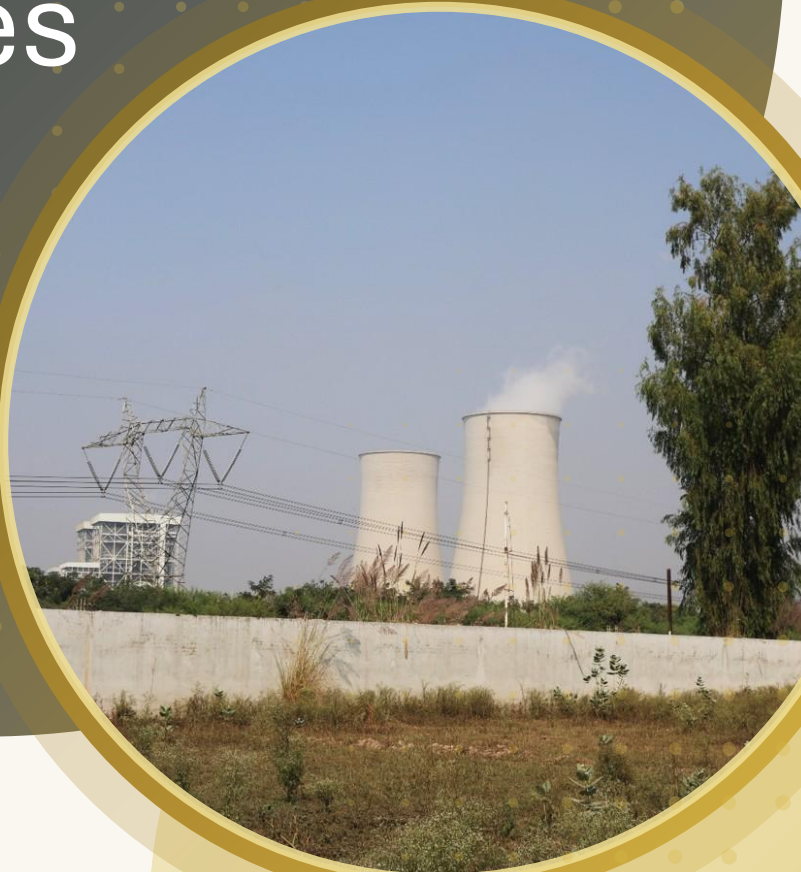
August 2026



Pind Sudhar

Tracing the Impact of **Sahiwal Coal-Fired** Power Plant on Local Communities

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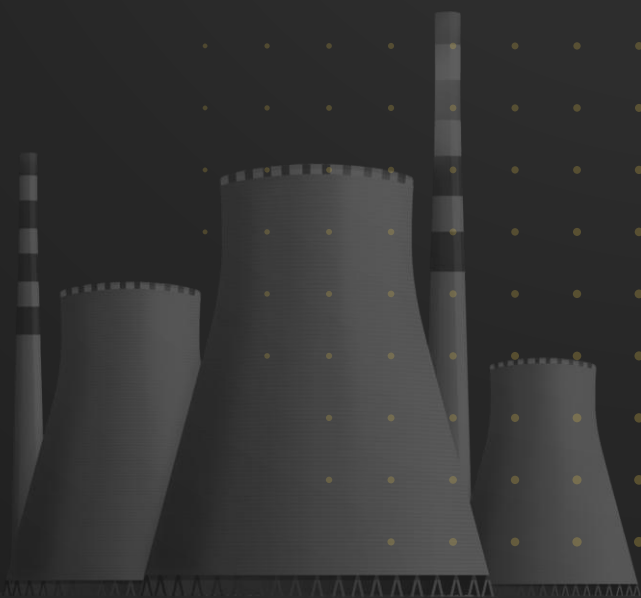
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Executive Summary

SAHIWAL COAL PLANT
COMMUNITY IMPACT STUDY 2026



EXECUTIVE SUMMARY

The Sahiwal Coal Power Plant was built to help solve Pakistan's severe electricity shortages. When it started operating in 2017, this 1,320 MW plant was expected to bring jobs, improved public services, and development to the region. However, this study shows that despite promises, the benefits for the villages closest to the plant have been very small, while the social, economic, and environmental costs have been huge. The study looks closely at how the plant has affected land, income, water, farming, travel, jobs, and government oversight in two nearby villages i.e. Chak No. 76/5-R and Chak No. 77/5-R. To do this, PSS researchers used a household survey of 121 people, four focus group discussions, 19 interviews with experts and officials, official records, environmental documents, and laboratory tests.

The plant has completely changed the local economy and daily life, and not for the better. Fertile farmland was taken, irrigation channels were modified, and a vital railway crossing was permanently closed. These changes reduced agricultural incomes, increased travel costs, hurt livestock farming, and made everyday life challenging for many families.

The process of buying the land also lacked clear rules and logic. The original 2014 Environmental Impact Assessment (EIA) report talked about using 639 acres of government land. Instead, the plant was built on privately owned, fertile agricultural land, and the total land taken rose to 1,004 acres. There are no public records explaining why the location changed or why additional land was needed.

In addition, the money paid to compensate people for their land was limited. It was given only to formal landowners. It ignored the many people who depended on the local farming economy but did not own land, such as tenant farmers, labourers, livestock keepers, artisans, and small business owners. For these families, a one-time cash payment could not replace a steady lifetime income from crops, animal feed, and farm work.

Because of this, local livelihoods have shifted dramatically. Farming as a main source of income dropped from 35 percent before the plant to just 16 percent after. At the same time, daily wage labour rose from 22 percent to 31 percent. The percentage of households describing their financial situation as "good" fell from 41 percent to a mere 17 percent, while 24 percent now describe it as "bad".

35% → 16%

Households with farming as
main income

41% → 17%

Households rating economy as
"good"

1,004 acres

Acquired vs. 639 acres in the
original EIA

Unfortunately, jobs at the plant have not made up for these losses. Long-term employment for locals is rare, and most available jobs are temporary, contractual, or low-paid. Many of these workers are also kept out of government social security and pension benefits.

Water is another major concern. Residents report that groundwater levels are falling quickly, meaning they must dig deeper wells, and the quality of their drinking water is getting worse. Official laboratory tests confirmed that drinking water in Chak No. 76/5-R is chemically unsafe. To make matters worse, the clean water pipeline system built for the village in 2015 is no longer working.

Irrigation water has also been heavily disrupted because canal water was redirected to the plant. Several local irrigation outlets were closed or stopped working. This left about 275 acres of unacquired farmland without canal water, forcing farmers to buy expensive tubewell water.

Furthermore, closing the railway crossing near Chak No. 77/5-R has greatly increased travel distances to the main GT Road and nearby towns. This has raised travel costs and made it much harder for people to reach schools, markets, hospitals, and jobs. Heavy security around the plant has also restricted people's movement, visitors, and community activities. While environmental monitoring does take place, the results are kept hidden from the public. Some air emission monitoring data shows the plant meets safety standards, but wastewater tests show pollution levels above permitted limits. Publicly available information on wastewater management, coal ash disposal, and official inspections remains scant, if not entirely unavailable.



A view of the plant's outer boundary wall.

Promises of community development through Corporate Social Responsibility (CSR) have also delivered few tangible benefits to the affected villages. Commitments concerning clean water, healthcare, education, roads and vocational training remain largely unfulfilled or poorly documented. The welfare trust established for the plant has no community representation and, according to available records, has neither received funds nor undertaken any welfare expenditure. Although its stated mandate provides for allocating two percent of the plant's annual net profit to the welfare of Sahiwal Division's 8.7 million residents, it gives no priority to the directly affected communities. The Punjab Energy Department claims that the plant established a technical training institute for the students of the area, but local legislators and community members dispute this claim. The CSR footprint appears limited to tree plantation and limited development work in the surrounding area.

Local government oversight has also broken down. Because the plant is treated as a highly secure, strategic facility, local district institutions are unable to inspect or regulate it. This has left environmental, labour, and social welfare departments without practical access to the site.

Finally, the plant has remained significantly underutilized for most part since its inception. Before the Strait of Hormuz crisis, its electricity-generation utilization had never exceeded 42 percent. However, as disruptions constrained liquefied natural gas (LNG) supplies to Pakistan while imported coal remained comparatively accessible to the Sahiwal plant, its utilization rose to as high as 55 percent. This recent increase does not negate the wider structural problem of surplus generation capacity and substantial capacity payments for plants that frequently operate well below their installed capacity.

The Sahiwal plant serves as a clear warning about the local costs of large and loosely-regulated infrastructure projects. Energy projects can serve national interests, but they should not leave local communities poorer, less mobile, and shut out from holding institutions accountable. Fixing these issues requires open information, fair compensation, restored services, and a real voice for the affected people. Large development projects must be judged not just by their power output, but by how they impact local land, water, health, and human rights.

1

Introduction & Methodology

SAHIWAL COAL PLANT
COMMUNITY IMPACT STUDY 2026



1. INTRODUCTION AND METHODOLOGY

The Sahiwal Coal-Fired Power Plant was built on highly fertile agricultural land known for crops and livestock. It began operating in 2017 to ease Pakistan's electricity crisis, with developers and government officials promising jobs and community development. Nearly ten years later, this report by Pind Sudhar Services (PSS) examines what has happened on the ground. The three-month study combines local community perspectives with official data and technical testing.

The primary data comes from a household survey of 121 adults in the two most affected villages including 78 from Chak No. 76/5-R and 43 from Chak No. 77/5-R. The sample was balanced to include 64 women (53%) and 57 men (47%) from various social classes and education levels. To understand the stories behind the numbers, researchers conducted four focus group discussions with 38 participants (30 men and eight women) and multiple key informant interviews over three months.

These community stories were cross-checked against 19 interviews with government officials, regulatory bodies, utility providers, politicians, and plant employees. The research team also reviewed Provincial Assembly of Punjab records, water invoices, and the original 2014 EIA baseline data commissioned by the Punjab government to National Engineering Services Pakistan (NESPAK) to measure the changes over the last decade. The primary data collection took place in February and March 2026.

This report does not debate whether Pakistan needed more electricity. Instead, it asks who paid the heaviest price for this power, and whether the local communities received the legal protection and public services they were promised. The analysis draws its basis from the Pakistani Constitution, including the recently added Article 9-A, which guarantees the right to a clean and sustainable environment, alongside rights to human dignity, movement, and property.

Following the 26th Constitutional Amendment, Article 9-A declares that "every person shall have a right to a clean, healthy and sustainable environment". Other relevant fundamental rights include Article 14 (human dignity), Article 15 (freedom of movement), and Articles 23 and 24 (property rights). These articles establish that the state must protect its citizens from environmental harm and ensure that development benefits everyone equitably.

STUDY METHODS

121

household survey respondents

4 FGDs

focus groups with 38 participants

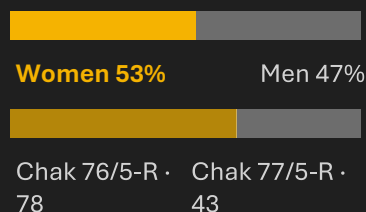
19 KIIs

key-informant interviews

17+

records across land, water, jobs & oversight

SAMPLE COMPOSITION



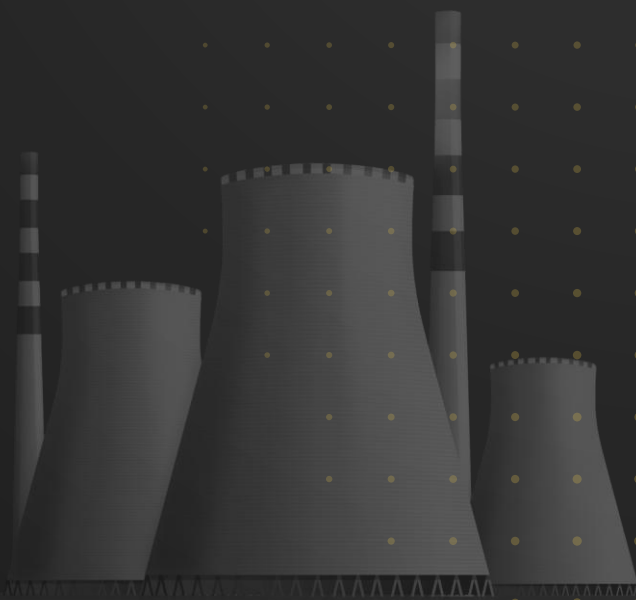
Pakistan has also committed to the United Nations's Sustainable Development Goals (SDGs) including the goals focused on ending poverty and protecting the environment by 2030. These goals emphasize protecting livelihoods, ensuring access to clean water, promoting decent work, and reducing inequality. This report tests the Sahiwal plant against these international commitments.

The report presents 15 key findings detailing what has changed since the plant opened and how these changes have affected different groups of people. These findings cover land, jobs, water, and local governance. In an era of shrinking agricultural land and food security challenges, Pakistan's commitment to protecting its agricultural resources serves as a key reference point for analysing these losses.

2

Key Findings

SAHIWAL COAL PLANT
COMMUNITY IMPACT STUDY 2026



2. KEY FINDINGS

2.1 STORY OF LAND ACQUISITION: AIMING AT ONE SITE, LANDING ON ANOTHER

Why Sahiwal, and why this specific village? While built to address a national energy crisis, the choice of Sahiwal has been highly debated. Officials argued that Sahiwal was chosen because it was close to major energy-consuming cities like Faisalabad and Lahore, could help stabilize the local power grid, and was near key infrastructure like the Yousafwala grid station, the Lower Bari Doab Canal (LBDC), and the main railway line.

According to the original 2014 environmental report (EIA), three Sahiwal sites were initially considered:

- **Site A (Chak No. 86/9-L):** Government-owned land, but it had been leased to local villagers for 99 years. Reclaiming it would require disturbing settlements and cancelling long-term leases.
- **Site B (Chak No. 64/5-L):** Mostly privately owned agricultural land. Buying it and resettling the owners would take too long for the government's tight schedule.
- **Site C (Chak No. 75/5-R):** Government-owned land belonging to a Livestock Experimental Station (LES). Because it was unoccupied, the EIA recommended this site to avoid legal and resettlement delays.

The entire feasibility study and environmental approvals were based on Site C (639 acres of public livestock land in Chak No. 75/5-R). However, during implementation, two major deviations occurred.

THREE CANDIDATE SITES

- Site A · 86/9-L**
Government land on 99-year lease. Rejected — would disturb settlements.
- Site B · 64/5-L**
Private farmland. Rejected — acquisition may be too slow.
- Site C · 75/5-R (EIA choice)**
Livestock Farm. Recommended in the EIA.

76/5-R

Where the plant was actually built — never in the EIA.

LAND ACQUIRED VS. EIA

EIA proposal 639 acres

Actually 1,004 acres

+45% more land, undocumented

CHRONOLOGY OF THE PLANT & ITS IMPACTS

2014	2015	2017	2020	2024	2026
EIA recommends Site C — 639 acres of public livestock land.	Acquisition of private farmland in 76/5-R. Total rises to 1,004 acres.	Plant commissioned. Railway crossing closed on security grounds.	Huaneng Sahiwal Welfare Trust registered — no funds since.	PHED pipeline rehabilitation plan rejected by the DC.	Lab tests declare village drinking water chemically unfit.

First, the project moved away from the public land and instead acquired privately owned agricultural land in Chak No. 76/5-R. This private land was never discussed in the feasibility studies or the EIA. No public records explain why the government changed its mind. One official claimed the government decided it was inappropriate to hand public research land over to a foreign private investor. However, if private land was suddenly acceptable, it remains unclear why the previously rejected Site B was not reconsidered. Locals believe the adjacent private land was chosen simply to avoid having to run a brand-new environmental assessment, assuming the old one would be "close enough". Sahiwal's farming structure, characterized by small family plots averaging five acres, also meant there was no powerful landed elite to resist the government's sudden change of plans.

Second, the land acquired increased from the original 639 acres to 1,004 acres — a 45 percent increase. The reasons for this extra land are not documented. Some locals believe it was intended for a third power unit that was never built. Today, residents allege that the plant administration uses the land for farming inside the plant boundary, which suggests that fertile land taken for "industrial necessity" is simply being farmed anyway.

Villagers described the land acquisition process as hurried and forced. When they protested and filed court petitions, the government responded with arrests, criminal charges, and harassment of their families.

While the government claimed it wanted to protect public assets, it still acquired 50 acres of government land leased to local families for mule breeding and as a *numberdari* grant. This land was left outside the plant's fence and remains unused.

2.2 OCCUPATIONS SHIFT AND INCOMES DECLINE

The most critical finding of this study is the permanent damage to the local economy of the surveyed villages. The loss of land has forced communities to transition from stable, farm-based livelihoods to insecure, cash-dependent incomes. This has shrunk the local middle class, lowered household financial security, and increased economic vulnerability.

Before the plant, the economy was heavily agricultural. In the survey, 35 percent of respondents said farming was their main income before 2015. Today, that has dropped to just 16 percent. Reliance on daily wage labour rose from 22 percent to 31 percent, while salary-based jobs increased from 17 percent to 23 percent,

and small trade went from 13 percent to 18 percent. This structural shift from stable farming to manual labour is highly consistent with the baseline trends identified in the original EIA reports.

OCCUPATIONAL SHIFT

Main income source, before → after plant

Farming Before **35%** → After **16%**



Daily Wages Before **22%** → After **31%**



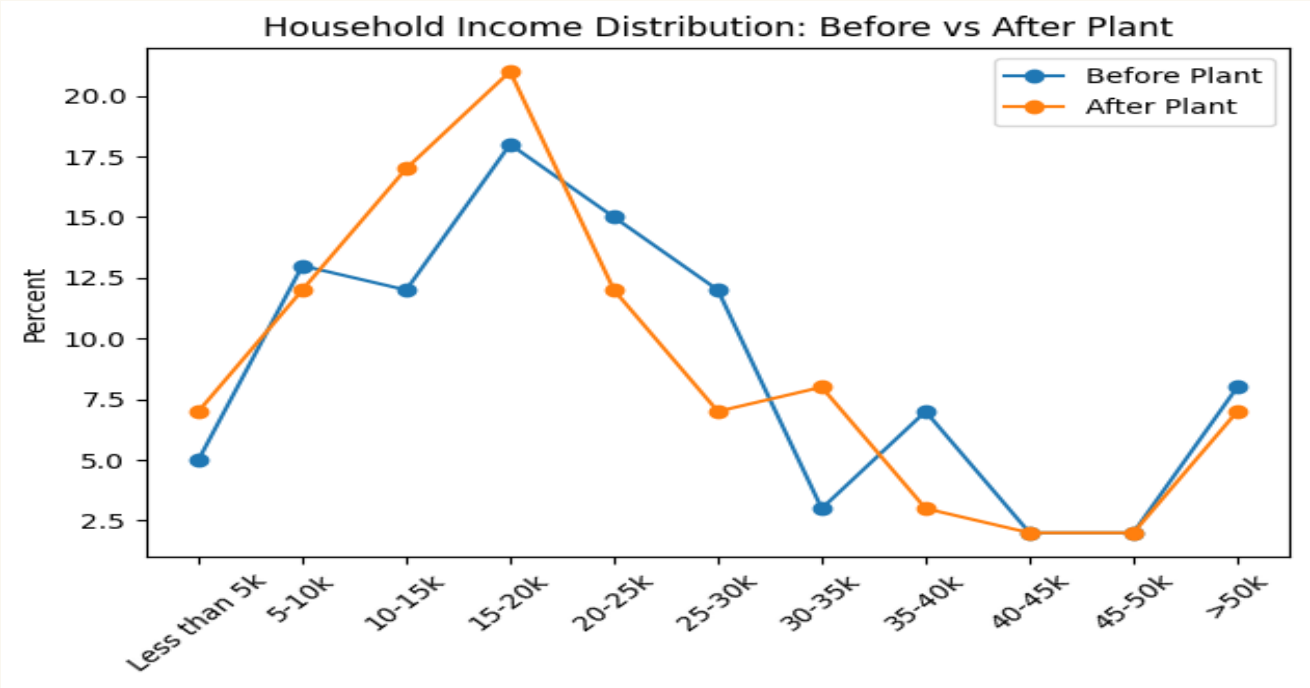
Salaried Before **17%** → After **23%**



Small traders Before **13%** → After **18%**



Household income perception data confirms a downward economic trend. Middle-income brackets have shrunk; for example, families earning PKR 25,001 to 30,000 monthly fell from 12 percent to seven percent, and those earning PKR 35,001 to 40,000 fell from seven percent to three percent. Meanwhile, lower-income brackets expanded, with households earning PKR 10,001 to 15,000 rising from 12 percent to 17 percent. During a period of high inflation between 2017 and 2024, stagnant or falling nominal incomes have severely reduced real purchasing power.



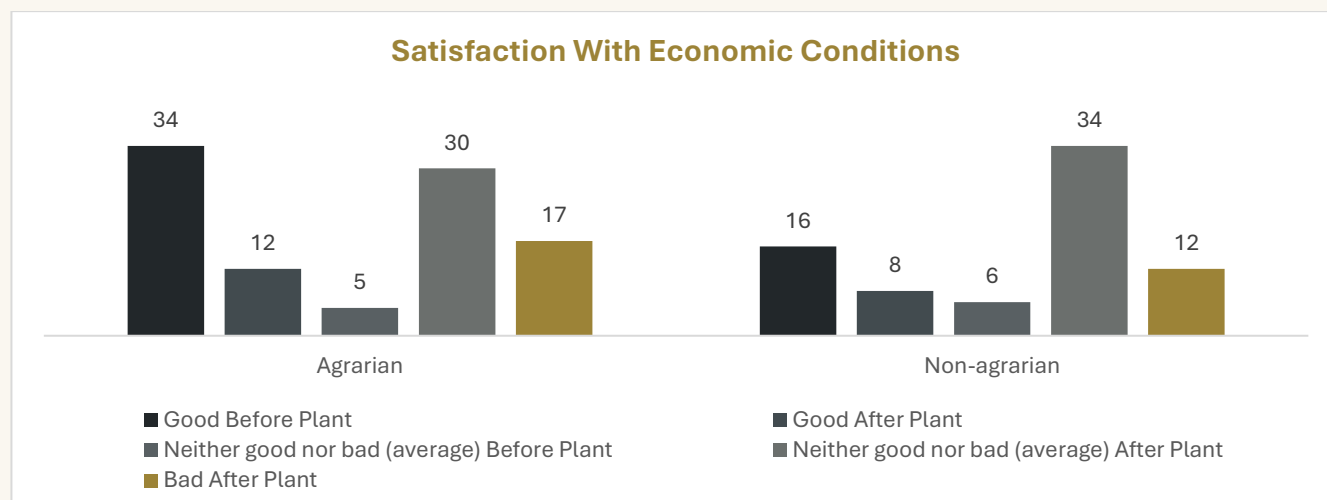
People's subjective feelings about their finances match these numbers. Before the plant, 41 percent of respondents described their financial situation as "good," and none called it "bad". Today, only 17 percent say it is good, while 24 percent describe it as bad. The majority (53 percent) now rate their situation as "average," suggesting they have slipped from comfort into economic insecurity.

SATISFACTION WITH HOUSEHOLD ECONOMY

Rating	Before Plant	After Plant	Shift
Good	41%	17%	↓ 24 pt
Bad	—	24%	↑ 24 pt
Neither good nor bad	9%	53%	↑ 44 pt
Other	46%	2%	—

This economic decline affected both landowning and landless groups. Among agricultural families, those reporting a "good" status fell from 34 percent to 12 percent, while "bad" ratings rose from five percent to 17 percent. Non-landowning groups saw "good" ratings fall from 16 percent to eight percent. The burden was particularly heavy for the 45 percent of respondents who belonged to non-agrarian groups (artisans, labourers, and shopkeepers). They lost their jobs

when the local farm economy collapsed but received zero compensation because they did not legally own any land.



Before the plant, households met many of their daily needs directly through their crops, milk, and livestock. Now, they must purchase food, fuel, fodder, and healthcare with cash. This cash-dependent lifestyle exposes them to extreme market volatility and inflation. Compensation did not solve this long-term issue. In fact, 54 percent of those who received compensation reported that their financial condition eventually worsened, as one-time cash payments were spent on immediate needs rather than sustainable assets.

Plant jobs did not replace these lost livelihoods. Only three percent of survey respondents earn their main income from the plant, mostly in low-wage, temporary positions. A plant worker estimated that while 100 people from Chak No. 76/5-R work at the plant, their contracts are short-term, lasting only four to twelve months. Although daily wages were adjusted to PKR 40,000 in March 2026 to match the provincial minimum wage, high inflation has cancelled out any real benefits.

2.3 DISRUPTION OF INFRASTRUCTURE, RESTRICTED MOBILITY, AND CURTAILED CIVIC FREEDOMS

Local infrastructure has deteriorated significantly since the plant's installation. Village roads are mostly unpaved, drainage is blocked, and physical movement has been severely restricted by the plant's security measures.

Access to Chak No. 76/5-R and Chak No. 77/5-R from the GT Road requires crossing a railway line with three tracks and the LBDC. Historically, residents crossed the canal via a boat bridge. Following a tragic boat capsizing in 2011, which killed 20 students at another similar boat bridge, the government constructed a concrete bridge that was completed in 2014.



Circle indicating the closed railway crossing.

As evident from the Google Earth snapshot, access to both villages from GT Road requires crossing a railway line with three tracks (two for mainline traffic and one serving the plant) as well as the LBD canal and its 5/R minor distributary. The railway crossing connecting Chak No. 77/5-R to the railway line had existed for decades, however, in 2017, the critical railway crossing located 1.5 kilometres from the plant was closed permanently on "security grounds".



Permanently closed railway crossing

This closure has made the new concrete canal bridge practically useless for vehicles. While pedestrians still risk crossing the active railway tracks on foot, cars and tractors cannot cross. Traveling to the nearest town now requires an 11-kilometre detour, heavily increasing transport costs for farmers, workers, and students. Locals have appealed to the Ministry of Railways for a pedestrian steel bridge, a demand endorsed by the local MNA, but no action has been taken yet. Survey findings show that 77 percent of affected residents identify this increased travel distance as a major disruption to their daily lives.

Drainage and sanitation are also in crisis. Wastewater flows openly through village streets, schools, and even the local graveyard, blocking pathways and causing a major public nuisance. While the government's *Suthra Punjab* initiative brought surface-level cleaning, it has not addressed the lack of a proper sewer system.

Furthermore, a permanent police post stands on the only remaining road connecting Qadirabad to Chak No. 76/5-R, which runs adjacent to the plant. Police regularly monitor residents, set up checkpoints, and search visitors to keep non-locals away from the plant.

As a result, local social, cultural, and religious life has been suppressed. Religious groups like the *Tableeghi Jamaat* are barred from entering the village. Traditional sports, kabaddi tournaments, and large social gatherings are practically banned. Wedding processions are closely monitored, with restrictions placed on fireworks and music. During visits by high-ranking officials, security personnel are deployed on the rooftops of private village homes. Farmers are also blocked from accessing or maintaining irrigation channels that pass through the plant's restricted property.

Yousafwala Railway Station was redesigned to serve the plant. Coal wagons arrive there and are transported to the plant through a purpose-built railway line for unloading. The station is no longer open to the public.



Sewerage water in streets and fields is a common scene in Chak No. 76/5-R



Yousafwala Railway Station was redesigned to serve the plant and is now closed to the public.

2.4 AVAILABILITY AND QUALITY OF POTABLE WATER DECLINES

Drinking water is now the most critical and alarming issue facing local communities.

In 2015, the Public Health Engineering Department (PHEDP) built a piped water scheme in Chak No. 76/5-R. Like most rural projects, its maintenance was handed over to the local community. However, the village lacked the funds and technical capacity to run it. In 2023, the scheme's electricity transformer was stolen. The community raised money to replace it, but it was stolen again in 2024, along with 200 feet of pipeline. Farmers levelling nearby fields accidentally destroyed other sections of the pipe. The PHEDP proposed a PKR 3.4 million rehabilitation plan in 2024, but the Deputy Commissioner rejected it without giving a reason, leaving the system completely broken.

Without piped water, residents must rely on groundwater through hand pumps and boreholes. Over the last ten years, the water table has dropped drastically. Domestic pumps must now drill to 200 feet, while agricultural tubewells go as deep as 700 feet.

This drop is highly unusual for lands located right next to a major canal. Residents point to the plant's heavy groundwater extraction. According to locals, the plant operates eight massive water turbines, which can pump two to three cusecs of water each. When canal water levels are low, these turbines run constantly to meet the plant's industrial needs, draining the local aquifer and making water scarce and expensive for locals.

The image shows a page from an EIA assessment report titled 'Water Monitoring Results'. It contains a large table with numerous columns, likely representing different monitoring points, parameters, and dates. The text is too small to read, but the structure suggests a detailed data log.

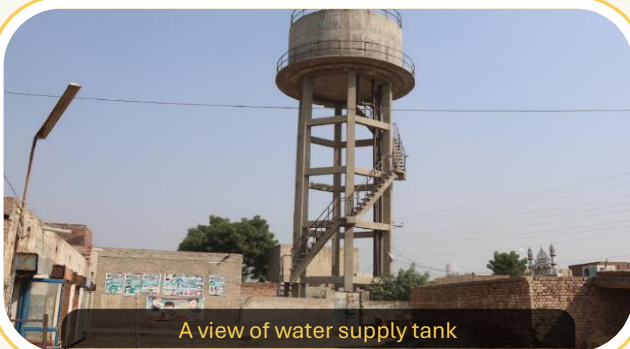
Snapshot of EIA assessment of water in 2014



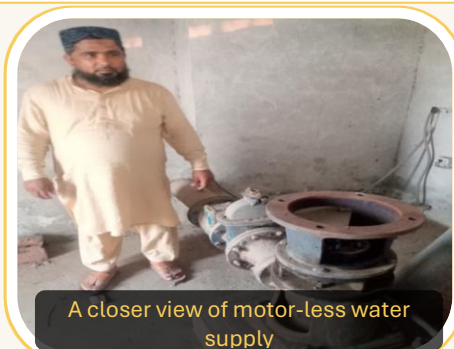
Water supply system without a motor



A closer view of motor-less water supply



A view of water supply tank

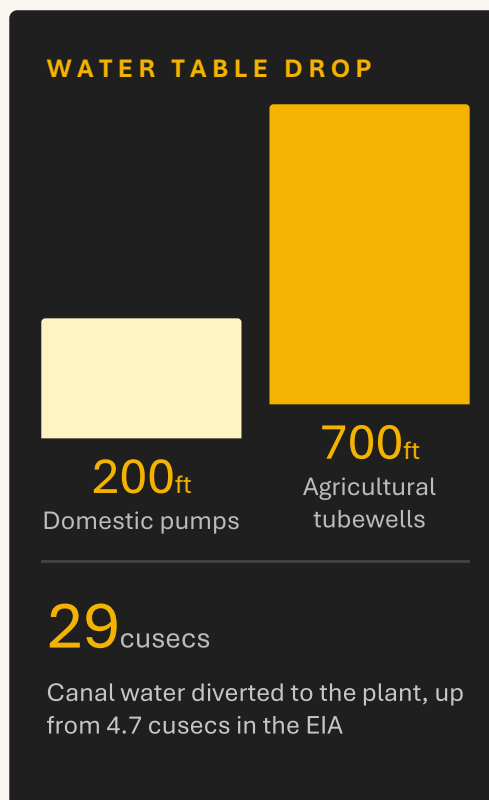


A closer view of motor-less water supply

Laboratory tests show that the water quality has deteriorated alongside its quantity. A March 2026 test of drinking water from Chak No. 76/5-R conducted by the government's PHED lab declared the water chemically unfit for human consumption. While clear and odourless, the water recorded a pH of 7.22, elevated electrical conductivity (2,305 $\mu\text{S}/\text{cm}$), high alkalinity (580 mg/L), and Total Dissolved Solids (TDS) of 1,383 mg/L. Another test by the Pakistan Council of Research in Water Resources (PCRWR) in June 2026 confirmed these findings, recording a TDS level of 1,286 mg/L.

A comparison with the 2014 EIA baseline shows a decline in water quality. In 2014, groundwater was safe, and the TDS level closest to the project site was 1,003 mg/L. By 2026, the TDS had risen significantly, making the water salty. A March 2026 test by the Agriculture Department also show that deeper agricultural water (at 350 feet) is only "marginally fit" for irrigation, meaning it requires careful management to prevent soil damage.

The plant has also diverted massive amounts of surface water. The Irrigation Department modified the 5-R minor distributary of the LBDC to supply the plant with 29 cusecs of canal water—enough to irrigate four to five average villages. This is a massive increase from the 4.7 cusecs projected in the original EIA. The increase occurred because the plant's design was changed from "subcritical" to "supercritical" to make it less harmful for the local environment. While more fuel-efficient, this configuration requires a much larger and more concentrated water supply.



MARCH 2026 · PHED LAB

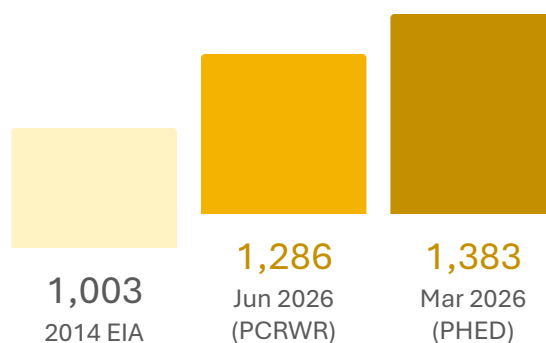
Chak No. 76/5-R drinking water

pH	7.22
Electrical Conductivity	2,305 $\mu\text{S}/\text{cm}$
Alkalinity	580 mg/L
Total Dissolved Solids	1,383 mg/L

Declared chemically unfit for human consumption.

2014 EIA VS. 2026

TDS trajectory



TDS in mg/L. Higher = saltier and more mineralized.

According to an official invoice from February 2026, the plant consumed 1,068,366 cubic meters of canal water in one month, paying PKR 3,772,762. This equals a continuous flow of 15.6 cusecs, indicating the plant was running below its maximum capacity during that month.

The amount paid by the plant to the irrigation department is slightly on the higher side if compared with the updated water cess charged to farmers in 2026 for the canal water.

2.5 WASTEWATER DISPOSAL AND EMERGING CONCERNS

The plant operators claim that all wastewater is treated before being discharged through an 18-inch pipe into a nearby *sem* nullah. A wastewater sample tested by the PCRWR complied with Punjab Environmental Quality Standards (PEQS), suggesting that the tested discharge was safe. However, official third-party monitoring reports show compliance issues within the plant premises (see Finding 2.7).



Discharge outfall pipe of waste water

Locals have raised concerns about where the wastewater actually goes. They report that very little water is seen exiting the outfall pipe. During winter, the outfall pipe remains dry for days. Even when active, the flow rarely exceeds one-third of the pipe's capacity.

This raises a major technical question. The plant draws huge amount of water. While a portion of this evaporates during steam generation, coal processing should generate large amounts of wastewater. The low discharge at the outfall suggests some wastewater might be left untreated or stored on-site.

DISCHARGE ANOMALY

1/3

Approximate outfall flow when active
— relative to pipe capacity.

WATER BALANCE QUESTION

Canal water drawn (Feb 2026)	1,068,365 m ³
Equivalent continuous flow	15.6 cusecs
Observed outfall flow	≤ ⅓ pipe capacity
Winter observation	Dry for days

2.6 RE-ENGINEERING OF IRRIGATION AND REDISTRIBUTION OF WATER RESOURCES

Chak No. 76/5-R is a large canal colony village spanning 2,125 acres. Excluding the 125-acre residential area, the village contains 2,000 acres of farmland historically irrigated by five outlets from the 5-R minor canal, which supplied 6.9 cusecs of water.

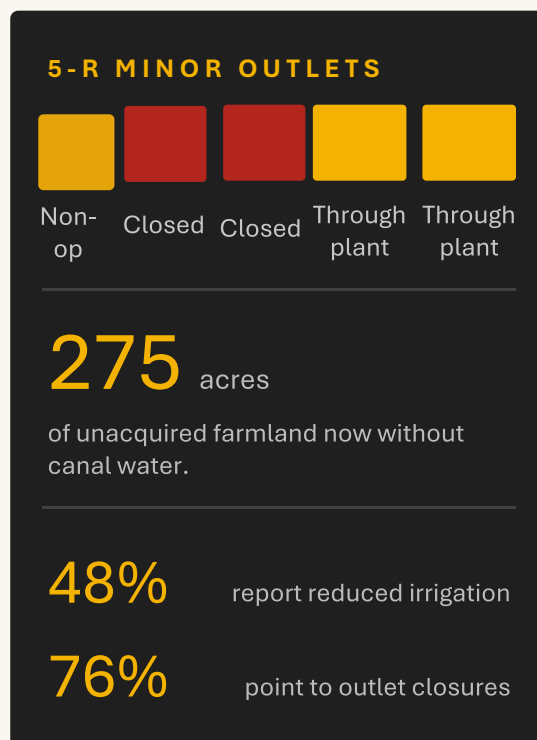
When the government acquired 1,004 acres for the plant, the Irrigation Department closed two outlets permanently and left a third non-operational. The two remaining outlets now must pass through the plant's secured property to reach the western fields of the village.

The closure of these outlets severely affected lands that were not acquired. Specifically, a 275-acre tract of private farmland on the eastern side lost all access to canal water due to the engineering changes made to feed the plant. These lands are now turning barren, and farmers are forced to rely on expensive tubewell water.

Farmers have submitted multiple petitions to the Sahiwal Commissioner. In November 2025, irrigation engineers proposed two technical fixes: shifting the water supply to the nearby 4-R minor canal or building a bypass channel. However, neither option has been materialized.

Meanwhile, farmers who still receive water through the channels inside the plant report that actual water flows are much lower than their official shares. New conflicts have also emerged. In October 2025, a plant representative applied to draw 1.36 cusecs of water from the farmers' shared supply for internal landscaping. Despite protests from farmers, irrigation officials recommended approving the plant's request in November 2025.

Locals also question why the plant has started farming activity inside its boundary when the surrounding family farms are facing water shortages and dropping crop yields. Out of 121 survey



respondents, 48 percent reported that the plant has reduced their irrigation water, with 76 percent pointing directly to the closure of canal outlets as the main cause.

2.7 ENVIRONMENTAL MONITORING EXISTS BUT REMAINS PUBLICLY INACCESSIBLE

The Environment Protection Agency (EPA) claims the plant is monitored through quarterly assessments conducted by a private consultant, M/S Green Crescent Environmental Consultants. These reports are uploaded to a digital database. However, this portal is completely closed to the public. The local EPA office in Sahiwal has no research wing and cannot access the data, which is controlled by provincial authorities in Lahore. Local officers have been blocked from conducting independent inspections due to the plant's security status.

The research team managed to access two quarterly reports through unofficial means, revealing a mixed picture:

- Air Emissions (October 2025):** The plant's smokestack emissions complied with the Punjab Environmental Quality Standards (PEQS). Carbon monoxide was recorded at 125.83 mg/Nm³, sulfur dioxide at 65.97 mg/Nm³ (well below the limit of 1,700), nitrogen oxides at 201.58 mg/Nm³ (limit: 1,200), and mercury at 0.0014 mg/Nm³.
- Wastewater (October 2025):** The wastewater analysis showed violations. TDS reached 1,508 mg/L (limit: 1,000), Biochemical Oxygen Demand (BOD) was 495 mg/L (nearly six times the safe limit of 80), Chemical Oxygen Demand (COD) reached 780 mg/L (limit: 150), and sulfides measured 14 mg/L (limit: 1). This suggests that the plant's wastewater is polluted and requires much better treatment before release.

WASTEWATER EXCEEDANCES · OCT 2025

TDS	1,508 / limit 1,000 mg/L
BOD	495 / limit 80
COD	780 / limit 150
Sulfides	14 / limit 1

Wastewater exceeds PEQS on every metric tested — while air emissions on the same report comply.

Local activists have filed Right to Information (RTI) requests for monitoring reports, in response to which EPA has shared the latest monitoring report that says that Plant’s stack emissions complied with Punjab standards during a one-time April 2026 inspection. Other reports are still awaited.

Community perceptions about the environment, however, do not match the monitoring data. The EIA described the area as relatively clean and predominantly rural before construction, with major air pollutants within applicable standards, while acknowledging that the plant would become its dominant industrial source of emissions. Consistent with this baseline, 92 percent of surveyed households described the pre-plant environment as good, compared with only 15 percent afterwards; respondents reported increased heat and air pollution, declining groundwater, contamination, and a rise in diseases, particularly asthma and skin and eye conditions. These concerns are also consistent with the drinking-water test findings discussed in Section 4. Although the available evidence does not conclusively establish that the plant caused

this deterioration, the absence of accessible monitoring data and independent verification makes it difficult to reconcile official compliance claims with community experience.



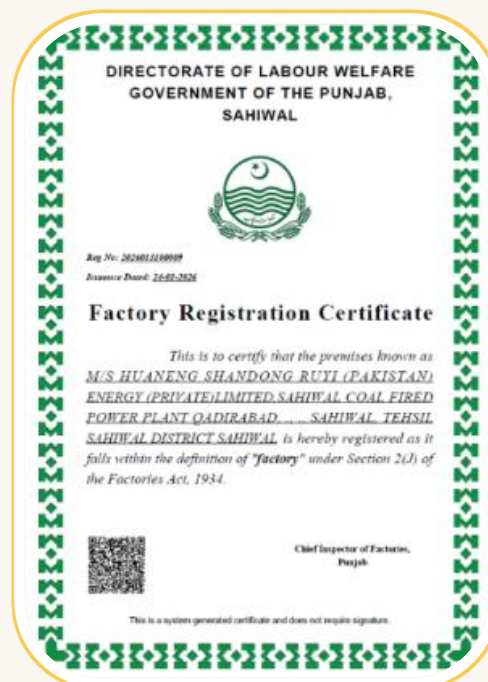
A view of plant's chimneys.

2.8 EMPLOYMENT: TOO LITTLE, TOO FICKLE

The promise of local jobs has not matched reality. During construction, the project did employ over 3,000 local labourers. However, once the plant became operational, these jobs disappeared. Today, only three percent of surveyed households get their main income from the plant, and these are limited to low-paying security and cleaning roles.

The plant operators recruited over 200 Pakistani engineers and sent them to China for technical training, promising to build a local training school. However, the actual Pakistani workforce registered with the Employees' Old-Age Benefits Institution (EOBI) is only around 440. This does not include Chinese staff, but there is no evidence that these registered jobs were given to residents of the hosting villages.

Furthermore, the plant is a "default" entity with the Punjab Employees Social Security Department (ESSD), having failed to register its operational workforce since 2017. This means workers have not received



Registration certificate of a Plant company under Factories Act, 1934

social security cards and are excluded from state-funded medical care, financial aid, and educational scholarships.

While 300 workers were registered during construction, those registrations were cancelled once operation started. Female workers are also entirely excluded from registration. ESSD inspectors have been denied physical access to the plant since 2019 due to "security restrictions," cutting off all communication.

A plant worker confirmed that uneducated locals are hired only as daily wage labourers on temporary contracts lasting four to twelve months. While wages were recently raised to PKR 40,000 per month to match the legal minimum, daily labourers do not receive any benefits, bonuses, medical facilities, or scheduled holidays. Employees are strictly forbidden from sharing any information about the plant and are fired immediately if they speak to outsiders.

The Social Welfare Department conducted inspections in 2017 but was blocked from any follow ups from 2018 to 2025. Following public complaints in 2025, they restarted an inquiry into labour conditions, but the government has not made the final report public since then.

JOBS REALITY CHECK

3,000 → 3%

Construction-era jobs vs. today's share of household main income.

440

Pakistani workers registered with EOBI — host-village share unclear.

4–12

Months — typical contract length for local daily labour.

2019

ESSD inspectors last granted physical access to the plant.

REGISTRATION & ACCESS TIMELINE

2017	Plant becomes operational. Workforce never registered with ESSD.
2017	Social Welfare Department conducts its only inspection.
2018–25	Department blocked from all further inspections.
2019	ESSD inspectors denied physical access on security grounds.
2025	Inquiry restarted after public complaints — report withheld.

2.9 LIVESTOCK SYSTEMS UNDER STRESS AMID CHANGING LOCAL CONDITIONS

Livestock rearing, which once served as a financial safety net for rural families, has slowly collapsed in surveyed villages. Residents report a severe decline in veterinary services, the disappearance of traditional grazing lands, and a rise in animal diseases.

Land acquisition has eliminated grazing areas along canal banks and reduced the land available for growing animal fodder. As livestock numbers have declined, the government has withdrawn local veterinary support, creating a destructive cycle.

A DESTRUCTIVE CYCLE

Grazing land lost to plant footprint

Fodder cultivation area shrinks

Livestock numbers decline

Government vet services withdrawn

Diseases rise, herds collapse further

WHAT LIVESTOCK HOUSEHOLDS LOST

Grazing land

Canal-bank commons absorbed into the plant footprint

Fodder area

Cropland for animal feed reduced with the acquisition

Veterinary cover

Government services withdrawn as herd numbers fell

Dairy income

Daily milk sales — often women's income — largely gone

2.10 ANY REPURPOSING AND CLOSURE AS PATHWAYS OF RESTITUTION AND LIVELIHOOD TRANSITION

The changing global and domestic energy context has raised questions about the future of the Sahiwal Coal Power Plant. China's decision to stop financing new overseas coal projects, together with Pakistan's capacity-payment burden, circular debt and the plant's low utilization in recent years, has prompted discussion about its possible retirement, conversion or repurposing. Although LNG supply disruptions following the US-Iran crisis temporarily increased reliance on coal generation, this debate is likely to re-emerge once energy markets stabilize.

For local communities, any future closure or repurposing of the plant is not seen as an economic threat, but as an opportunity to undo a decade of harm. When asked about the future of the plant site in case of retirement of the plant, residents expressed clear preferences:

49%

Land Restitution

Return the 1,004 acres directly to original farming families.

41%

Government Employment

State absorbs displaced plant workers into other departments.

29%

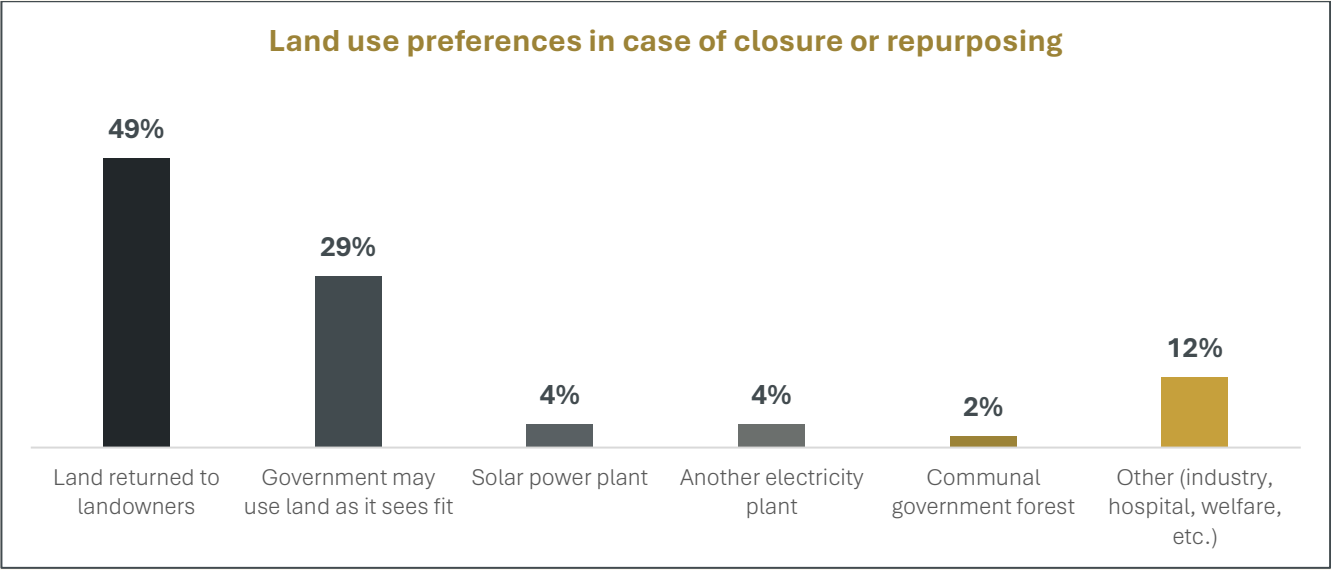
Equitable Public Use

Let government keep the site if it benefits the community — e.g. solar energy or public welfare.

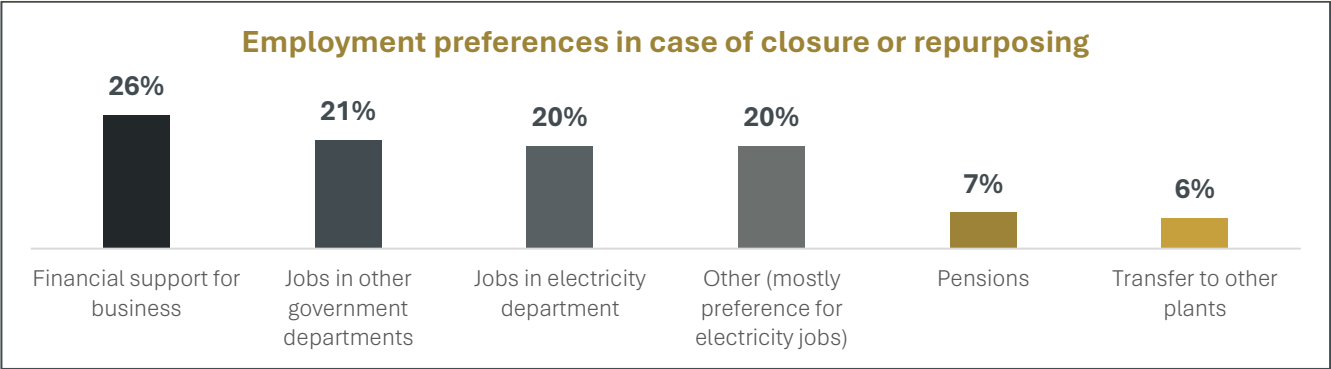
26%

Financial Support

Startup grants to help displaced workers establish small businesses.



FGD participants also believe that closing the plant would reduce local pollution, lower temperatures, ease the water crisis, and lift the heavy police security that has restricted their social lives. However, they emphasise that closing the plant is not enough; the government must actively restore their irrigation channels, clean the soil, and rebuild their drinking water infrastructure.



2.11 MARGINALISED AT DOUBLE LOSS

The damage caused by the plant has not been felt equally. While landowners lost assets, landless labourers, tenants, herders, and women suffered a "double loss". They lost their entire livelihoods when the agricultural economy collapsed, but they received zero financial compensation.

This injustice is built directly into Pakistan's colonial-era Land Acquisition Act of 1894. The law only recognises and compensates individuals who hold formal, registered land titles. It has no provisions to help tenants, sharecroppers, or traditional village artisans who rely on that land for survival but do not own it.

About 45 percent of the survey respondents belong to these non-landowning groups. When farming shrank, they lost their jobs and incomes, yet they were completely ignored by the state's compensation framework.

For women, the impact was even more complex. While some women landowners received direct payments into their bank accounts - which challenged traditional male control - the cash was quickly spent on household survival.

COMPENSATION FRAMEWORK

45%

of survey respondents belong to non-landowning groups — all ignored by the 1894 Act.

Not eligible for compensation

- ☐ Tenant farmers
- ☐ Sharecroppers
- ☐ Farm labourers
- ☐ Livestock keepers
- ☐ Traditional artisans
- ☐ Small business owners
- ☐ Women without title

WHO THE 1894 ACT COMPENSATES

Compensated

55%

Registered landowners with formal title
Some women holding land in their own name

Received nothing

45%

Tenant farmers · Sharecroppers · Farm labourers
Livestock keepers · Artisans · Shopkeepers ·
Women without title

Of those who *did* receive compensation, **54% report their financial condition eventually worsened as** one-time cash was spent on immediate needs rather than sustainable assets.

2.12 STRATEGIC INSULATION AND THE RESTRICTIONS OF LOCAL OVERSIGHT

A major governance problem highlighted by local officials is that district authorities have no writ over the plant. Although the plant is legally bound by national labour, environmental, and safety laws, its status as a highly secure project has insulated it from local oversight.

District labour, environmental, and social welfare departments have been unable to exercise their inspection powers. Whenever local officers attempt to investigate labour violations, environmental dumping, or water issues, they are denied entry under the guise of security reasons.

This has created an unaccountable regulatory vacuum where the plant operators answer only to federal authorities, leaving local communities with no way to seek justice.

DEPARTMENTS REPORTING ACCESS ISSUE

Environment Protection Agency

Labour Department Employees

Social Security Social Welfare

Department Public Health

Engineering Irrigation Department

Local District Administration

2.13 CSR WITHOUT DELIVERY

There is a massive gap between the grand corporate social responsibility (CSR) promises made by the plant and the daily reality in the villages.

On 3 July 2017, the plant operator (HSR) signed a formal agreement with the Punjab government through Punjab Power Development Board (PPDB), committing to pay 2 percent of its annual net profit (roughly PKR 200 million annually) to a Welfare Trust Fund to support local clean water, schools, and hospitals. However, a clause in the agreement makes this funding contingent on the company receiving its full tariff payments from the power purchaser, linking public welfare to corporate profits. While publicly marketed as a vehicle to build clean water systems, schools, and hospitals across the region, the fund was structurally diluted at the divisional level. Spanning three districts and seven tehsils, if these funds were distributed equally among the division's 8.5 million residents, the 16,000 people in the directly affected host villages would receive a measly PKR 376,000 a year.

While the *Huaneng Sahiwal Welfare Trust* was registered in December 2020, there is zero public record of its funds, projects, or expenditures. Unlike other projects, like the Thar Foundation in Sindh which maintains a transparent public website, this trust operates in complete secrecy.

CSR BY THE NUMBERS

PKR 200M

Annual commitment (2% of net profit)

PKR 0

Received since the Trust inception

Dec 2020

Trust registered — nothing publicly published since

Furthermore, because the fund was structured at the divisional level, its resources are spread across three districts, meaning the directly affected villages receive almost nothing, directly violating NEPRA's standard guidelines requiring power plants to consult with local communities to ensure CSR funds are used appropriately.

In response to RTI requests by local activists filed with PPDB asking for the details about the Trust and the funds it received and disbursed, it was shared that the Trust is headed by Commissioner Sahiwal division and no funds had been received by the it from the date of its establishment up to 20 April 2026. Annual receipts were reported as nil. In practical terms, this means that nearly nine years after the signing of the SrA and the commissioning of the plant, the dedicated institutional mechanism established for CSR activities had neither received resources nor financed any community intervention.

The plant's visible CSR footprint remained largely confined to tree plantation and sporadic development work undertaken during the early years of its construction, as confirmed by key informants.



Trust Registration Certificate

2.14 EVADING LEGISLATIVE OVERSIGHT

The plant has also avoided political accountability. On February 3, 2026, local MPA Arshad Malik questioned the Energy Department in the Punjab Assembly about what benefits the plant had brought to Sahiwal. The Parliamentary Secretary, Mansoor Azam responded to the question. The ensuing debate escalated when the Parliamentary Secretary claimed the plant had built a technical training school where 600 local students were being educated. This was immediately challenged by local MPAs Arshad Malik and Pir Vilayat Shah Khagga, who called the statement a flat-out inaccuracy. They pointed out that any such facility is locked behind high-security walls and is completely inaccessible to the public. While the assembly speaker ordered a committee to investigate, no report has been produced so far.

THE ASSEMBLY QUESTION

“A technical training school. 600 local students.”

— The claim made on the Punjab Assembly floor.

Local MPAs replied that no such facility is accessible to residents. A committee was ordered to investigate. No report has been produced.

2.15 THE PLANT'S UNDER-UTILISATION REFLECTS A STRUCTURAL REALITY

The Sahiwal Coal Power Plant has remained underused despite being fully functional. According to Pakistan Credit Rating Agency, its annual generation fell from 4,855 GWh in 2022 to 2,090 GWh in 2023, reducing the use of its 1,320 MW capacity from about 42 percent to only 18 percent. This underutilization existed well before RLNG supplies were disrupted by the Iran conflict, suggesting a long-term structural problem. Following the disruption in the Strait of Hormuz, however, the plant's utilization rose to 55 percent because imported coal was more readily available than RLNG.

This recent increase reflects a temporary shift in fuel availability rather than a resolution of the power sector's structural problems. Pakistan continues to carry surplus generation capacity, while imported-coal plants are ordinarily placed lower in the merit order when cheaper hydropower, solar or other sources are available.

Under the capacity-payment provisions of the Power Purchase Agreement, the government must pay substantial fixed charges based primarily on the plant's availability, regardless of how much electricity it generates. Consumers therefore continue to bear the financial burden of maintaining an underutilized and polluting plant, while neighbouring communities carry many of its environmental, physical and economic costs.

3. RECOMMENDATIONS

PART I

Immediate Remedies for Affected Communities

- 01 Restore Safe Drinking Water**

Rebuild the broken village pipeline in Chak No. 76/5-R immediately. Hand over long-term operations to a funded public department. **Interim:** clean water tankers and filtration units to prevent residents from drinking contaminated groundwater.

- 02 Restore Irrigation Access**

Resolve the 275-acre water crisis by implementing the proposed 2025 engineering solutions — shifting irrigation to the 4-R minor, or bypassing the plant premises. Compensate small farmers for tubewell fuel costs until canal water is restored.

- 03 Restore Mobility**

Build a safe, grade-separated crossing at the closed railway point near Chak No. 77/5-R. Ensure security needs are met without isolating thousands from markets, schools, and hospitals.

- 04 Independent Environmental Audits**

Launch an independent hydrogeological and environmental review of the plant's groundwater pumping, wastewater flow, and toxic fly ash storage. Make findings fully public to restore community trust.

- 05 Protect Livelihoods & Labour Rights**

Deploy mobile veterinary camps and livestock support targeting affected women. Enforce EOBI and ESSD registration of all plant workers to guarantee pension, medical and safety protections.

PART II

Transparency, Oversight, and Policy Reform

01

Public Monitoring Portals

Launch an online, easy-to-read database sharing regular stack emissions and wastewater testing results. Grant local EPA authority to perform unannounced physical inspections.

02

Disclose CSR Accounts

Require the Huaneng Sahiwal Welfare Trust to publish annual audited financial statements detailing contributions and project expenditures, prioritising closest affected villages.

03

Reform Land Acquisition Laws

Update the Land Acquisition Act of 1894 to mandate livelihood restoration and compensation for landless agricultural workers, tenants, and women.

04

Review National Grid Role

Evaluate the plant's low utilisation and heavy capacity payments. Co-design a community-led transition plan if the plant is retired, reduced in capacity, or repurposed for green energy.

“Energy projects can serve national interests — but they should not leave local communities poorer, less mobile, and shut out from holding institutions accountable.”



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