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Green Zones, Green Jobs? The Untapped Employment Promise Inside Bangladesh's Economic Zones

Selim Raihan

Bangladesh government's economic-zone strategy was built around a promise: concentrate infrastructure, reduce regulatory friction, attract investment, and create jobs at scale. The policy puzzle is that the "green zone" idea has advanced faster than the green employment agenda. Solar rooftops, central effluent treatment, waste management and climate-resilient infrastructure increasingly feature in zone planning. Yet the workers who will design, operate, repair and monitor these systems remain absent from the discussion. A zone may be environmentally better than an unplanned industrial cluster. That does not automatically make its jobs green, skilled or decent.

The gap between ambition and delivery is visible. The country once spoke of 100 economic zones and 10 million jobs by 2030. By early 2025, only 10 zones were operational, employing about 60,000 people, while BEZA's draft master plan during early 2025 shifted towards prioritising 20 zones through 2046. This rationalisation is sensible. The earlier approach spread resources across too many sites, often before land, utilities, connectivity or credible investors were secured. But a smaller portfolio will succeed only if the government moves from counting zones and investment proposals to measuring production, employment quality, local linkages and environmental performance. In a very recent move, BEZA would be merged with BIDA and PPPA under the new Invest Bangladesh Authority, created by the Invest Bangladesh Bill 2026. The unified apex agency under the Prime Minister's Office will streamline investor services and integrate promotion, zone management and PPP functions.

The employment question is urgent. Bangladesh does not simply need more jobs; it needs work that is more productive, better paid and capable of supporting structural transformation. Private investment remains weak, while smaller firms face

unreliable infrastructure and limited finance. Economic zones could ease these constraints through serviced land, predictable utilities and shared facilities. Yet investment, job creation and environmental sustainability remain separate tracks. They should form one strategy. Green infrastructure must generate green occupations, while those occupations should raise productivity, wages and industrial capability.

A green job is not simply any job inside an environmentally branded zone. The International Labour Organization defines green jobs as decent jobs that preserve or restore the environment. That distinction matters. A worker in unsafe conditions, under an insecure contract and without social protection does not hold a green job merely because the factory recycles water. By contrast, an engineer managing energy efficiency, a technician maintaining solar systems, or a chemist monitoring wastewater may perform genuinely green functions. Bangladesh needs an occupational definition, not another branding exercise.

Much of the untapped potential lies in services surrounding production. Zones can create demand for energy auditors, environmental technicians, renewable energy electricians, recycling operators, water treatment specialists, laboratory staff and safety officers. They can also support firms that repair machinery, recover materials and provide lower-carbon industrial services. Some require advanced qualifications; others need focused technical training, creating a ladder towards technical and supervisory employment. Factories have expanded faster than the specialised skills, suppliers and services needed to sustain them.

Firms, however, will not create these jobs merely because policy documents use the word green. Environmental compliance is often treated as a cost

when enforcement is inconsistent, and penalties can be negotiated. Investors respond to incentives should therefore be linked to measurable performance. Access to subsidised land, fiscal benefits or priority services could depend on energy use, water recycling, emissions reporting, waste recovery, workplace safety and employment standards. Unconditional incentives may attract factories, but not necessarily greener firms or better jobs.

Skills policy is another missing link. Training is usually designed nationally, while labour demand is local and sector-specific. Different zones require different capabilities. BEZA, or the new investment authority that succeeds it, should work with skills agencies, technical institutes, universities and investors to prepare a skills map for each priority zone. Training must be tied to committed firms, equipment standards and defined job descriptions, not generic certificates. Firms should co-finance apprenticeships and guarantee interviews. Otherwise, Bangladesh will continue training people for jobs that do not exist while importing technicians when factories begin production.

The distribution of employment also deserves scrutiny. Economic zones acquire land and reshape local economies, but neighbouring communities do not automatically secure the new opportunities. The Japanese-backed zone in Narayanganj revealed the tension: displaced households faced uncertain livelihoods, while many feared that jobs would go to outsiders. Compensation cannot end the state's responsibility. Each zone needs a local transition plan covering livelihood restoration, skills assessment, access to recruitment, transport, housing, healthcare, and schooling. Local hiring quotas may be rigid, but transparent recruitment platforms and targeted training are feasible.

Women's employment requires equal attention. Bangladesh's export processing zones show that industrial zones can employ women at scale. Future jobs, however, may become more technical and skill-intensive. Without deliberate action, women could remain concentrated in lower-paid production roles while men dominate engineering, maintenance, logistics and environmental management. Childcare, safe transport, anti harassment systems, sanitation and transparent promotion pathways are not social

add-ons. They determine who can enter, remain and advance. Scholarships and apprenticeships for women in electrical work, laboratory testing and energy management could widen access to better paid occupations.

The deeper constraint is political economy. Economic zones appeal to governments because they produce visible infrastructure and investment announcements. Employment systems, environmental monitoring and worker services are less visible and institutionally demanding. They require coordination among the investment authority, environmental regulators, labour agencies, local government, training providers and investors. Yet no single institution is responsible for whether a green zone creates green and decent jobs. This accountability gap is convenient. Agencies can claim progress while shifting responsibility for weak outcomes. The new master plan should establish zone-level indicators.

A credible framework must report more than investment commitments. It should publish operational firms, employment, women's participation, local recruitment, wages, and apprenticeships. Zones receiving substantial public support should face consequences when infrastructure remains idle, investors do not materialise, or environmental facilities fail to operate.

The real question is not whether Bangladesh can build green economic zones. It is whether these zones can become institutions of structural transformation. That requires fewer but better prepared sites, sector-specific investment strategies, enforceable environmental conditions, employer-linked training, local transition plans and decent work. Infrastructure alone will not deliver the employment dividend. It must be designed, financed, negotiated and measured. Otherwise, Bangladesh may end up with greener brochures while reproducing low-skill, weakly regulated and unequal industrialisation behind the gates.

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The Just Transition Gap: Who Gets Left Behind When Bangladesh Phases Out Fossil Fuels?

Israt Hossain

The trend of enhancing power generation capacity based on fossil fuels has not paid off for Bangladesh over the last two decades. To meet peak demand, it has built up a system running at 40% overcapacity based on fossil fuels, which is well above the reserve margin of 10-15% that is considered healthy. Many of these power plants are idle for long periods of time, yet continue to receive full capacity payments. This capacity charge burden has been an important argument for the last five or six years, resulting in support for the fossil fuel phase-out. However, that is not the only reason working in favor of just transition support. Bangladesh is one of the world's most climate-vulnerable countries, and reducing fossil fuel dependency is part of global environmental obligations. In addition, the energy sovereignty of the country is at stake due to consistent geopolitical unrest. Cheaper and uninterrupted power, a livable climate, and energy independence: these are the reasons why Bangladesh should transition to fossil-free energy. But the question that arises here is: will it be just?

Who will pay the cost of transition?

The fossil-fuel based powerplants which we are advocating for phasing out consist of several operating power stations, most notably coal-fired plants like Rampal, Payra and Matarbari, and oil-based power plants employing a large number of people in formal employment with pensions. While a single solar farm requires only a tiny fraction of this number of employees to build and maintain, there is no publicly available mapping of where the workforce of the fossil fuel-based energy sector might go.

The stakes of the phase-out process are even higher in industries. For example, the ready-made garment

(RMG) sector, the largest employer in the country, has around 4 million workers in over 4,000 factories, most of which are powered by cheap gas from state-owned companies, through captive boilers in factory backyards. The industrial sector is by far the biggest consumer of gas in the country. As the world begins to decarbonize, they are having to find a way to do the same, and if they do not green their supply chains, they will be unable to sell to the same foreign buyers, who are in the process of setting their own emissions targets. And how do they decarbonize? By switching to grid renewable energy-based power accompanied by efficiency measures (lighting, air-conditioning) and industrial automation. All these changes require specific skilled labor, which will affect the current labor force in the country.

The workforce nobody is counting

The first step towards just transition should always be the actual assessment of the current situation through data accumulation. Interestingly, there are no official statistics from the government about green jobs or renewable sector jobs. A country like Bangladesh that does not even manufacture most of the solar equipment that is used in the country cannot hope to capture much of the employment in the renewable energy sector. Yet, the issue of jobs that would be created by the renewable energy or green energy transition has not been given the kind of attention it deserves in Bangladesh. For example, among 66 million workers, only 127,600 people in Bangladesh were working in the renewable sector in 2020. After six years, the situation has not changed much, even if we consider green jobs covering more green, more sustainable occupations rather than the strict renewable sector limit. With the broad green jobs criteria, Bangladesh has 25% green jobs, which is slightly higher than the South Asia average (24%);

however, the non-green workers' adaptation capacity towards green jobs is lowest in Bangladesh in comparison with other countries in the region. This makes early, deliberate re-skilling not optional but essential, since the country's workers begin the transition from further behind than their regional peers.

Transition for development could be detrimental for a workforce if unplanned

A group of energy workforce in Bangladesh has already been left behind due to the decline of the country's once thriving solar home systems program. The program, which was initially provided and financed through the state-owned IDCOL, had installed some 4.5 million SHS around the country, employing hundreds of thousands of workers in the process, mostly rural technicians including village women. According to the ILO's Green Jobs project, Bangladesh had the 4th largest number of renewable energy workers in the world in 2013. The system later failed to deliver as promised. In the late 2000s, the national grid reached most of the rural areas, and demand for home systems collapsed. Once the system failed to meet demand, those livelihoods were lost with no retraining scheme or safety net in place for the displaced workers. If the country is to avoid the same mistake at grid scale, it will have to learn from its own history.

Plan on paper and the reality diverge

In September 2025, Bangladesh submitted its third Nationally Determined Contribution (NDC 3.0) to the UN, the first to include a dedicated chapter on Just Transition. Aligned with ILO Just Transition Guidelines (2015), the climate plan for Bangladesh sets out to establish a national Just Transition framework and develop sectoral roadmaps for energy, industry, and transport. The plan also sets out three key priorities to ensure that a low-carbon economy creates decent work for all: re-skilling of workers in carbon-intensive sectors; social dialogue with trade unions and employers; and the protection of vulnerable groups and communities, including informal workers, women, and youth.

However, ambition in a climate pledge is not equal to provisions in the plans to be implemented in order to reach the climate goals. The 2023 Integrated Energy and Power Master Plan (IEPMP)

is proof of this reality. During the last few months of the interim government, the Ministry of Energy, Petroleum Resources and Mineral Resources started the revision of the IEPMP to outline priorities for the new energy and power master plan. The draft revision seems to outline very interesting priorities for a master plan, including reducing carbon emissions and utilizing domestic resources. However, it is also clear that the priorities outline a vision for energy development in terms of fuels and megawatts, but do not contemplate the actual plan for how to transition the workforce of carbon-intensive sectors to the clean energy economy. Therefore, although the NDC 3.0 includes a 'Just Transition Chapter', the energy planning that guides the construction of the power sector does not.

The institutional test

However, even if the commitment is sincere, a host of problems must be addressed before Bangladesh can translate its climate change ambition into real action on the ground. For starters, grid modernization is being stymied by a host of bureaucratic, financial, and technical constraints. There is a culture of foreign-driven planning as opposed to homegrown ownership that must be changed. The state power utility is hemorrhaging to the tune of billions of dollars in annual losses and in the form of massive subsidies.

Moreover, implementing a just transition needs institutions capable of conducting an honest inventory of the workforce of carbon-intensive and captive-power-based industries, to fund and implement the re-skilling of these workers before their workplaces are shut down, as well as developing the local supply chain. It needs a genuine tripartite (government/ employers/ workers) task force to monitor progress. A new clean energy future for Bangladesh that merely goes to electrify the country while the people who toiled on the country's old fossil fuel-based grid and in its factories are abandoned would be no different than a new set of failures.

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10,000MW of solar by 2030, but who will build it?

Mohammad Iftekhharul Islam

Bangladesh has set itself an ambitious clean energy goal. In April 2026, the cabinet approved a target of generating 10,000 megawatts (MW) of electricity from solar by 2030, under a Renewable Energy Policy 2025 that aims to draw at least 20 per cent of the country's power from renewables by the end of the decade. The intent is welcome. Setting a target on paper, though, is the easy part; building the plants and training the people behind them is the hard one.

That target raises a harder question: who will design, install, inspect, maintain and finance 10,000MW of solar in barely four years? Solar currently supplies only about 1.45 gigawatts of the country's capacity, so the plan asks Bangladesh to expand its solar fleet almost sevenfold in that time. Financing and equipment will carry part of the load. The rest rests on people, which is the part least discussed.

A SEIP labour-market study by SANEM projects that solar jobs could climb from about 1.1 lakh today to roughly 2.42 lakh by 2035. Around 1.55 lakh of those workers would need short, certified training, and another 75,000 a background in science, engineering or mathematics. The roles are well-defined such as installers, electricians and grid engineers, but also project managers, quality inspectors and financiers who will be able to build bankable deals.

Where those jobs land depends on the kind of solar Bangladesh builds. A megawatt of rooftop solar can support more than 25 jobs, against barely two for a utility-scale park, so a distributed rollout would spread far more work into towns and neighbourhoods. Policy already leans that way. The Net Metering Guidelines 2025 now make rooftop systems compulsory for many larger new connections, and a fresh public-private partnership

route opens unused government land to developers. Every one of those roofs needs a surveyor, an installer and an inspector who lives close by. The SEIP projection, in any case, assumed a build-out far smaller than the 10,000 MW now targeted, so the real training need runs higher still.

The gap between target and delivery is already visible. Last year the Bangladesh Power Development Board floated a tender for more than 5,000 MW of solar across 55 sites. But it drew so weak a response that the board retreated to a much smaller 495 MW round in April 2026. Investors hesitated on price and risk, but thin execution capacity weighed just as heavily. IEEFA estimates the country holds only about 1,700 MW of renewable capacity today and must add some 760 MW a year to 2030 to stay on course, a pace that demands trained hands at every stage.

Those hands are exactly what the training system does not yet produce. Bangladesh's technical institutes and universities produce engineers, diploma holders and electricians, yet their courses rarely cover hands-on solar design, installation standards, grid integration or digital monitoring. Specialised training exists sits mostly inside scattered donor projects and NGO programmes, barely recognised in the national qualifications framework. One recent assessment states that the country will need thousands of technicians, electricians and engineers, and its training must catch up with the market.

The policy framework already anticipates some of this. The Renewable Energy Policy 2025 tasks SREDA, the renewable-energy authority, with the guidelines, industry-academia links and national register of installers and maintenance firms that a credible workforce needs. But delivering all of it falls to an under-resourced office. A recent BUILD review

noted that SREDA must shoulder this growing list of roadmaps and guidelines with a staff of barely forty. CPD makes the same point from the other side, arguing that bureaucratic delay, financing constraints and limited technical capacity together slow every renewable target the country sets. The gap now is not one of ambition but of administrative muscle.

Other countries show what happens when training races ahead of demand. India set up a dedicated Skill Council for Green Jobs. Through its Suryamitra programme, the agency trained more than 56,000 solar technicians since 2015. Yet barely half have found work in the sector, because training centres multiplied faster than projects did. The Asian Development Bank draws the same lesson for the region; certification pays off only when it is tied to real hiring, not to training targets. Bangladesh's planned installer register should therefore grow out of genuine demand from the start, not get locked on once the gap shows.

The whole scenario is not all full of negatives. A recent World Bank study found that about one in four jobs in South Asia already qualifies as green, and Bangladesh's green jobs sector tends to cluster at the medium-skill level, closer to solar work than many assume. The study concluded that a large share of workers could be employed with only modest retraining. That is an opportunity rather than a guarantee. Without training, certification and a clear way in, the employment will not happen on its own.

Approached properly, the solar drive could become a jobs strategy as much as an energy one. It would open technical careers to young Bangladeshis, and to the women still largely shut out of the trades, while keeping the skilled labour at home the country has long exported. A steady pipeline of decent, certified work would turn a power-sector target into a development story.

Building that capacity at home also guards the country's balance sheet. If Bangladesh imports the panels and the people who fit them, it trades one dependence for another. A domestic workforce keeps the value and wages inside the economy, and lets local firms compete as neighbours scale up. Here, speed and skills are not competing goals over

four years they will rise or fall together.

The solutions are not mysterious. First, the government should publish a national solar skills roadmap that ties the 2030 target to firm estimates of how many technicians, engineers, inspectors and trainers will be needed, and where. Industry groups have already pressed the new government for exactly such a clear, inclusive roadmap, with workforce planning at its centre.

Second, institutes and universities should include solar modules into existing programmes now, rather than wait years to build new ones from scratch. Third, Bangladesh needs recognised certification standards for installers and auditors, benchmarked for safety and performance. The national register the policy already promises could anchor them, so that quality is not hampered under the rush to build and finance is allocated properly. CPD has shown that fossil fuel projects took about 79 per cent of the power and energy allocation in the revised FY2026 budget, against roughly 5 per cent for renewables, and a small slice of that gap would fund the trainers and workshops the sector lacks.

Fourth, none of this can rest on the state alone. Development partners that financed power-sector reform should now support the labour force, pairing local training centres with established institutes abroad. Industry, the direct beneficiary of a steady flow of skilled workers, should help design courses and run real apprenticeships instead of one-off workshops, while regulators align licensing and inspection with the skills the sector now requires.

The 10,000MW goal is the right ambition, and Bangladesh is right to call solar a necessity rather than a luxury. But targets do not install themselves. Treat the workforce as an afterthought, and the country will either miss its deadline or meet it with imported labour and poor effort that fails early. A nation that has spent decades sending its workers abroad now has every reason to build the workforce at home its own energy future demands.

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Bangladesh's Green Transition: Meeting the ESG Challenge

Md. Razib

Environmental, Social and Governance (ESG) standards have moved beyond corporate social responsibility to become a defining factor in global trade and industrial competitiveness. As international buyers, regulators, and consumers increasingly demand lower environmental footprints and greater supply chain transparency, manufacturers are expected to meet rigorous standards for carbon efficiency, water stewardship, energy optimisation, and climate resilience. Sustainability is no longer optional it is a business imperative.

For manufacturers, adopting green practices is not merely about meeting compliance requirements; it is also a sound business strategy. Investments in energy-efficient technologies reduce electricity and fuel costs, while water conservation lowers utility expenses. Waste reduction and recycling decrease disposal fees and raw material consumption, improving operational efficiency. At the same time, internationally recognised certifications such as LEED (Leadership in Energy and Environmental Design) and ISO 14001 enhance corporate reputation, strengthen buyer confidence, and create competitive advantage in global markets.

The urgency of this transition is being reinforced by rapidly evolving international regulations. The European Union has introduced comprehensive ESG reporting requirements through the Corporate Sustainability Reporting Directive (CSRD), under which companies will be required to disclose sustainability performance using the European Sustainability Reporting Standards (ESRS). Germany's Supply Chain Due Diligence Act similarly requires companies to ensure environmental protection and respect for human rights throughout their supply chains. Japan, the United States, and several other major export

destinations are also incorporating environmental sustainability into trade policies and procurement decisions.

For Bangladesh, these developments represent both an opportunity and a significant risk. According to the South Asian Network on Economic Modeling (SANEM), if ESG compliance becomes mandatory in European markets and Bangladesh fails to meet the required standards, exports to the EU could decline by nearly 30 percent, while overall exports may fall by 10–12 percent. Meanwhile, global apparel brands are already tightening supplier requirements. American Eagle now requires at least 10 percent of the electricity used by its tier-one and tier-two suppliers to come from renewable sources, while Levi Strauss and Gap have committed to reducing greenhouse gas emissions by 42 percent by 2030. Suppliers unable to meet these expectations risk losing access to key export markets.

Bangladesh's transformation over the past decade demonstrates that meaningful progress is possible. Once criticised for poor workplace safety and weak environmental compliance, particularly in labour-intensive industries such as garments and leather, the country has emerged as a global leader in green manufacturing. Bangladesh now hosts 270 LEED-certified garment factories, including 114 Platinum and 137 Gold-certified facilities—the highest concentration of top-tier LEED factories anywhere in the world. This achievement reflects long-term investments by manufacturers, strategic leadership from the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), and a growing commitment to sustainable industrial development. However, international expectations continue to evolve. Buyers in Europe and North America increasingly

evaluate suppliers not only on price and product quality but also on environmental performance, labour standards, governance practices, and transparent ESG reporting. Consequently, Bangladesh's ready-made garment (RMG) sector must embed sustainability into its core business strategy rather than treating it as a compliance exercise. Aligning with ESRS requirements and strengthening ESG reporting will be essential to maintaining long-term competitiveness in European markets.

The leather industry illustrates the consequences of falling behind. Despite its considerable export potential, Bangladesh's leather sector continues to struggle because many tanneries lack Leather Working Group (LWG) certification, a prerequisite for supplying leading international brands. As a result, exports to important destinations such as Italy have weakened. Addressing these shortcomings will require urgent upgrades to the Central Effluent Treatment Plant (CETP) in Savar, improved environmental compliance within tanneries, and more effective waste management systems.

The economic benefits of sustainability extend far beyond regulatory compliance. First, alignment with ESRS and broader ESG standards helps ensure continued access to lucrative European markets while strengthening Bangladesh's competitive position against countries such as Vietnam, Turkey, and China. Second, resource-efficient production significantly lowers operating costs. According to BGMEA, LEED-certified factories have achieved energy savings of up to 40 percent and reduced water consumption by approximately 30 percent, directly improving profitability.

Third, strong ESG performance increasingly attracts investment. International financial institutions and sustainability-focused investors are directing capital towards businesses that demonstrate measurable environmental and social commitments. Finally, consumer preferences are changing rapidly.

As sustainability becomes a defining feature of global fashion, international brands increasingly favour manufacturers capable of demonstrating credible environmental performance and transparent supply chain practices.

Despite this progress, significant challenges remain. The transition to greener production requires substantial upfront investment. Installing solar panels, energy-efficient machinery, water recycling facilities, and advanced wastewater treatment systems demands considerable financial resources, particularly for small and medium-sized manufacturers. Although these investments generate long-term savings, many firms struggle to secure affordable financing during the initial implementation phase.

Access to green finance remains another major obstacle. Notably, the FY26-27 national budget remains silent on expanding Bangladesh Bank's green financing programme. Although the central bank has instructed commercial banks to offer green financing loans at a concessional rate of 5 percent, many investors are unable to access financing at this rate in practice. Large-scale green financing is often channelled through IDCOL, but high collateral requirements, bank guarantees, and extensive documentation create significant barriers to entry. Concerns also persist regarding the transparency of IDCOL's loan disbursement process, with a relatively small number of firms reportedly receiving the bulk of available support.

Capacity constraints also persist. Many firms continue to lack specialised expertise in sustainability management, ESG reporting, and environmental compliance. Limited awareness among managers and employees often slows implementation and reduces the effectiveness of sustainability initiatives.

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