THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Grantham Research Institute on Climate Change and the Environment

JUST TRANSITION FINANCE LAB

Case study

Ayana – building a skills base for India's clean energy transition

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One of the defining features of the just transition is its potential to maximise the social opportunities of climate action, including by creating employment. In India, Ayana Renewable Power is combining the social need for decent work with business self-interest by developing skills development programmes for local people so they can participate in the growing clean energy economy – which in the country as a whole is set to generate hundreds of thousands of new jobs.

Summary

- Ayana Renewable Power was established by British International Investment (BII) as a platform to generate commercial returns and social impact by expanding clean energy. It is now majority-owned by India's National Investment and Infrastructure Fund Limited (NIIFL), which has helped scale the platform from 0.5 GW to more than 4 GW of capacity.
- Ayana is applying best-in-class environmental, social and governance (ESG) practices to its rollout of clean energy projects across India, and its Community Development Framework sets out how it engages with stakeholders to support the just transition.
- Ayana has worked with its investors to develop a just transition programme that focuses on community engagement and skills development. Initially, these efforts were grant assisted, but they have become mainstreamed and are supported by Ayana's core resources.
- Ayana demonstrates how development finance institutions such as BII and institutional investors such as NIIFL can help to make the just transition a core part of clean energy expansion, applying just transition principles at the company level within specific policy contexts.
- For clean energy developers, the case also shows how developing skilled employment, including, importantly for women, can overcome labour constraints on expansion.

Just Transition Finance Lab case study series

The Just Transition Finance Lab case study series profiles emerging practice in bringing the just transition to life, examining the interplay between companies, finance institutions, workers, communities and policymakers. A major focus is on the role that finance can play in supporting meaningful action.

The case studies are based on interviews with key protagonists and observers. They seek to explore the motivations, processes, successes and challenges in addressing the social implications of the transition to a net zero and nature-positive economy. They also aim to identify lessons that can be drawn from early steps to align the interests of capital, labour and the wider community in an equitable response to the climate crisis. The aim is to show what is possible and encourage leadership.

The Just Transition Finance Lab is based at the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science.

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Introduction

Ayana Renewable Power is an India-based renewable energy developer, majority-owned by National Investment and Infrastructure Fund Limited (NIIFL). Ayana was founded in 2017 by British International Investment (BII), the UK's development finance institution. The company has developed an ambitious skills development and training programme to spread the benefits of the clean energy transition and ensure it has the skills base needed to support its growth.

Policy context

India's climate and energy transition is taking place in the context of a fast-growing economy with a high and continuing dependence on fossil fuels. In November 2021, India pledged to become net zero by 2070, compared with 2050 for the EU and the US, and 2060 for China. Prime Minister Narendra Modi also committed India to reduce the emissions intensity of its economy by 45% by 2030 and increase to 50% the percentage of non-fossil electricity generating capacity by the same date. This includes a target of reaching 500 GW of renewables by 2030, up from 205 GW (including large hydro) at the end of 2023.[1] In the 2024 Climate Change Performance Index, India was the highest ranked G20 economy overall, based on its comparatively low greenhouse gas emissions per capita, but it achieved only a medium ranking on renewables.

India's Long-Term Low Carbon Development Strategy, published in 2022, provides further detail on how it intends to achieve its climate and energy goals. The country is currently on track to exceed its renewables target. By the end of 2022, it had reached 42% non-fossil power capacity.[2] The Indian government nonetheless foresees an increased role for coal and natural gas. Its latest electricity plan, the National Electricity Plan (NEP2023), adopted in May 2023 and covering the period 2022–32,[3] envisages adding 25.5 GW of coal capacity to the 206 GW India had in late 2023,[4] as well as increasing its liquified natural gas capacity.

The just transition is starting to move up the climate and energy policy agenda. The Long-Term Low Carbon Development Strategy highlights the critical importance of climate justice and the just transition.[5] It particularly acknowledges the importance of skills development, including retraining workers in the fossil fuel sector,[6] describing reskilling and redeployment of workers as crucial: "Experienced human resource from fossil fuel sector could be retrained to meet the requirements of non-fossil sector in future, thereby making the transition just, smooth, sustainable and all inclusive." The Strategy also notes that a just transition will require "supporting social and physical infrastructure", including "building capabilities of communities, and to seed new livelihood generating activities".

The government created a Skills Council for Green Jobs in 2015, which had trained 574,000 workers across businesses as of April 2024.[7] However, many more will be needed: by 2030, the wind and solar sectors alone could require 1 million workers.[8]

This is an area of enormous opportunity for workers across India's formal and informal economies, says Mansi Shah, senior technical coordinator at the Self Employed Women's Association (SEWA), a trade union representing 2.9 million self-employed women workers. A recent survey by SEWA of its members found that the impact of climate change is the most pressing issue they face, but also that there is significant potential for 'climate entrepreneurs' to provide products and services to help rural communities mitigate their climate impact.

1. www.spglobal.com/commodityinsights/en/market-insights/latest-news/energy-transition/121923-india-set-to-ramp-up-renewables-capacity-in-2024-but-thermal-dash-continues
2. https://energy.economictimes.indiatimes.com/news/renewable/mnre-says-india-has-achieved-172-gw-of-power-capacity-from-non-fossil-fuel-sources/96375694
3. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1928750
4. www.argusmedia.com/en/news-and-insights/latest-market-news/2512311-india-to-add-80gw-of-coal-fired-capacity-by-2031-32
5. www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/02/Just-Finance-India.pdf
6. https://unfccc.int/sites/default/files/resource/India_LTLEDS.pdf
7. https://sscgj.in/wp-content/uploads/2024/04/SCGJ-Newsletter-Issue-26.pdf
8. *Just Finance India*, p6, supra note 5.

The company

Ayana Renewable Power, headquartered in Bengaluru, is one of India's leading renewables-focused independent power producers. Majority-owned by NIIFL's core infrastructure fund, India's largest infrastructure fund, the company also counts founder BII and Eversource Capital, India's leading climate impact investor, as major shareholders.

As of late 2023, Ayana had a portfolio of around 1.6 GW of operational solar assets, located in Andhra Pradesh, Rajasthan, Karnataka and Tamil Nadu, with a further 3 GW of solar, wind, hybrid wind and solar, and round-the-clock projects under development. These round-the-clock projects combine wind, solar and storage to provide non-intermittent power. The company is focused on including energy storage technologies in its portfolio, including pumped hydropower, and is also developing a pilot green hydrogen project. The company aims to add 2 GW of renewable energy capacity annually.

Company CEO Shivanand Nimbargi has personally transitioned from the coal-fired power sector and places a premium on Ayana's environmental and social responsibilities. In setting out the company's vision statement, Nimbargi says it is "committed to empowering communities".[9] The company pledges to "work closely with communities to help them develop". Its Community Development Framework, which informs how it manages its relationships with local communities as it develops and operates projects, states that "[a] key objective of Ayana's strategy is to provide skills, employment and entrepreneurship opportunities to local communities, with a special focus on women, youth and marginalised groups (e.g. those with disabilities)", in accordance with the objective of "ensuring a just transition to low carbon power generation by creating additional job opportunities for local populations".

Ayana also follows international norms in its approach to land acquisition. Some renewables projects in India have been accused of contracting unfairly with landowners and failing to adequately consult local communities.[10] Ayana applies the International Finance Corporation's Performance Standards and national laws to guide its land procurement processes.

Vinod Giri, managing partner at NIIFL and a board member at Ayana, says, "At NIIFL, we are proud to witness Ayana's outstanding achievements in driving India's green transition. Its achievements are a reflection of the team's dedication to embedding best-in-class ESG practices and empowering grassroots communities in India. As we strive to collaboratively work with platform companies like Ayana to further develop and refine ESG practices, it is heartening to see the tangible impact of our shared vision for a transformative just transition."

9. www.ayanapower.com/about
10. https://idronline.org/article/climate-emergency/lay-of-the-land-a-road-map-for-the-renewable-energy-rookie/

As a company established by BII, high ESG standards were embedded from the start, says Rohit Anand, regional head (South-East Asia) at BII and its head of infrastructure equity (Asia). "How the company deals with issues around community and the social aspects of the business has always been top of mind," says Anand, who sits on Ayana's board.

"One of our key principles is our intention to actively make a difference to the communities in which we work," says Nimbargi. He explains that when the company considers a new investment the project must first clear Ayana's ESG and business integrity requirements. "Only then do we get into the investment rationale on the financial side ... That is why we stand out as a differentiated company in this sector," he adds.

Ayana has been awarded an A- rating for ESG performance from ISS Ratings;[11] this is the highest such rating awarded to a renewable energy company in Asia, and among the top three globally, Ayana says.

> Our intention is to actively make a difference to the communities in which we work.
>
> *Shivanand Nimbargi*
> *CEO, Ayana Renewable Power*

The investors

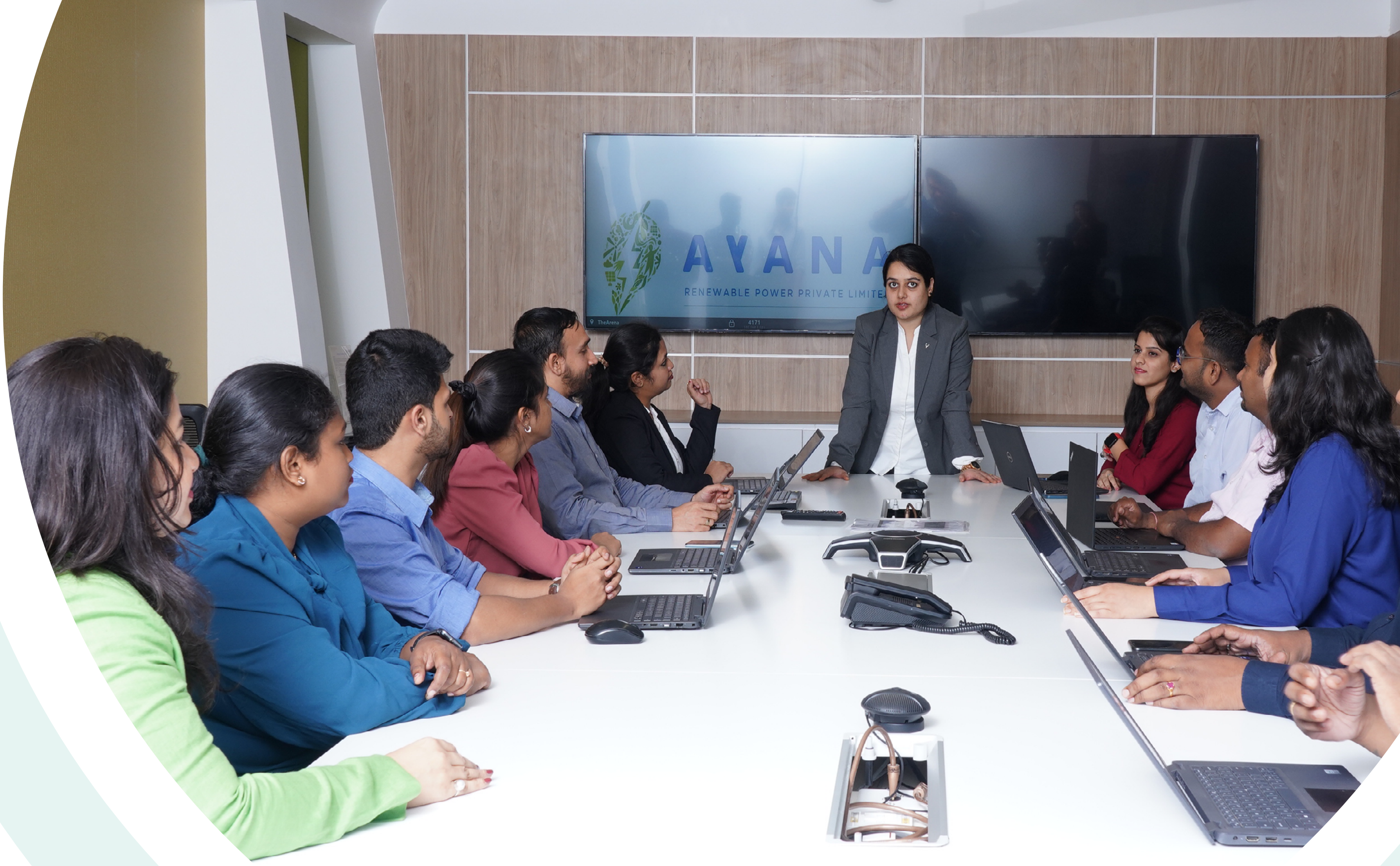
Anchored by the Government of India, NIIFL is a collaborative investment platform for international and Indian investors. It has $4.9 billion in assets under management, with a strong governance framework and best-in-class ESG practices for the organisation, portfolio companies and funds. As well as seeking to manage environmental and social risks and identify related opportunities, NIIFL seeks to "look beyond commercial impact" and generate positive outcomes for the communities where it invests. It has established four "CSR guiding principles": empowering women; developing sustainable livelihoods; engaging communities; and enhancing capacity.[12]

At NIIFL, environmental and social requirements are strongly integrated across the investment cycle. Giri notes, "NIIFL has a dedicated Environment Management & Social Development Group with more than 45 years of combined experience. The group works closely with the investment teams with an oversight responsibility of the company's portfolio companies and funds to drive ESG initiatives."

BII, formerly the Commonwealth Development Corporation (CDC), is the UK's development finance institution (DFI). Its mission is to "help solve the biggest global development challenges by investing patient, flexible capital to support private sector growth and innovation".[13] It invests its assets of £8.1 billion across Africa, Asia and the Caribbean, with a focus on investing to create more productive, sustainable and inclusive economies. It has pledged to allocate at least 30% of its new investments to climate finance. In 2022, 46% of its commitments, or £591 million, were to climate finance.[14] Alongside its requirement to back commercially successful businesses, it also has an explicit development impact mandate. It says its first criterion for investment is whether a business "can make a positive economic, environmental or social impact".[15] As well as its climate focus, BII also prioritises increasing gender equality in the companies and economies in which it invests.

Historically, BII's development impact framework has been heavily focused on job creation, says Amal-Lee Amin, BII's head of climate, diversity and advisory. She joined the firm in 2020 from the Inter-American

11. www.ayanapower.com/static/media/Brief_Report.6a63c764404433563ce5.pdf
12. www.niifindia.in/community
13. www.bii.co.uk/en/about/our-company/
14. www.bii.co.uk/en/annual-review-2022-investing-for-a-better-tomorrow/
15. www.bii.co.uk/en/about/our-company/how-we-operate/



Development Bank, where she had worked with the International Labour Organization on just transition and job creation related to net zero. At that point, BII was developing a new climate strategy, and Amin suggested that the just transition become one of its core pillars.

BII (under its former name of CDC) launched its climate strategy in 2020, titled 'Investing for clean and inclusive growth'. It identified climate change as a cross-cutting theme across its investments and based the strategy on three building blocks, of which supporting a just transition is the second – ensuring "the change to net-zero and climate resilient economies is socially inclusive" (alongside investing in line with a 1.5°C trajectory, and addressing climate adaptation and resilience).

BII describes a just transition focus as presenting "a natural fit" and considers it "crucial to ensure economic transformation is delivered in a socially inclusive manner".[16] It also notes that it has "a core commitment to job creation and deep expertise in improving working conditions and running training and skills programmes".

"At the time, none of our peers among development finance institutions were thinking about that. The public sector-focused multilateral development banks [MDBs] were starting to, but from a policy perspective, and less in terms of specific implications for the private sector," says Amin.

In March 2019, the NIIFL and the Green Growth Equity Fund (GGEF) both took 25.5% stakes in Ayana.[17] GGEF is an India-focused climate impact private equity fund managed by Eversource Capital, which is a joint venture between Indian private equity firm Everstone Group and Lightsource BP, an arm of the UK-based oil major.

In March 2021, NIIFL Master Fund increased its stake in Ayana to 51% of the company, while BII's shareholding was reduced to 32.2% and GGEF's to 16.8%.

16. https://assets.bii.co.uk/wp-content/uploads/2020/07/01181554/CDC-climate-change-strategy_FINAL-FOR-PUBLICATION-1.pdf p37
17. www.niifindia.in/about

A just transition at Ayana

Corporate just transition plans typically seek to address the impacts of the energy transition across a number of dimensions. For example, the Council for Inclusive Capitalism, working with several leading energy companies, has proposed a just transition framework for business that rests on four pillars: universal net zero energy, workforce evolution, community resilience, and collaboration and transparency.[18] Such frameworks aim to support local communities and affected workers, while ensuring consultation, collaboration and transparency.

In 2017, Ayana published its Community Development Framework, which sets out how it plans to address various groups of stakeholders through a just energy transition where it is operating.[19] The framework has five pillars:

- **Energy access** – providing clean, decentralised energy to poorer communities around its utility-scale projects that rely on kerosene or firewood for lighting and cooking
- **Skills training** – providing employment to local people, while simultaneously plugging skills gaps
- **Location** – taking a place-based approach to its just transition work, focusing on where it is operating or plans to develop projects
- **Collaboration** – with government organisations, NGOs and private sector partners on its skills and training work
- **Implementation** – beginning with a community needs assessment as part of each project's planning and regulatory clearance phase, followed by selection of partners, planning, implementation, monitoring and, finally, transfer to the community.

The availability of a skilled workforce represents one of the greatest challenges for renewable energy companies in India. Many of the workers the sector needs will be highly specialised – possessing engineering, business development and operational and maintenance skills – but many more will be in semi- or low-skilled occupations. In a recent study of trends and skills needs, India's clean energy workforce is forecast to grow from around 164,000 at the end of 2022 to more than 1 million by 2030.[20]

For Ayana, the skills issue is particularly acute. As Anand explains, the company seeks low-cost land in rural areas for economic reasons but part of the reason that land is low cost is because local populations tend to lack the skills that potential employers require. These include the skills to build, operate and maintain renewable energy projects.

This need for skills overlapped with the desire of BII and Ayana to generate positive development impact. It led to the UK government, through the Department for International Development, providing the majority of the grant funding for a pilot project in NP Kunta Village, Sri Satya Sai District in Andhra Pradesh in 2019. The 'Skills for a solarised future' project aimed to provide skills to local unemployed young people, particularly young women, to help them find green jobs at the nearby Ananthapuramu Ultra Mega Solar Park.

18. www.inclusivecapitalism.com/just-energy-transition-home/
19. www.ayanapower.com/static/media/Community DevelopmentFramework.308f5073b423d1e711b2.pdf
20. https://www.nrdcindia.org/pdf/NRDC%20-%20Jobs%20report%20Feb%202023_Final_04022023.pdf

The project provided skills that were useful for working within the renewables industry, along with transferable skills that could be used elsewhere. "This makes a huge difference in terms of impacting people's lives in a sustainable way," says Ayana's Nimbargi. "We didn't take the route of giving people a one-time grant, but instead empowered people by skilling them, and giving them a livelihood so that they become independent."

That pilot project trained 184 individuals, including 84 women, with 74 of the total subsequently finding work. Its second programme, near its 300 MW solar plant in Bikaner, Rajasthan, trained 180 young people during the COVID-19 lockdown and afterwards. Of these, 138 were able to secure related employment. The project was 50% funded by BII and 50% by Ayana. The second phase of that programme, in 2022, saw 200 students receiving certification. More than 120 male and 20 female students subsequently received job offers.[21] The third phase, in 2023, involved 200 students receiving certification, after which more than 100 male and 46 female students received job offers.

In July 2023, the company launched its skills development centre in Karnataka. The centre will provide vocational training for young people in Gadag District, close to where one of its 300 MW wind projects is currently under construction. Offering customer relationship management and energy data skills, the centre aims "to transform a new generation of the local workforce by equipping them with the right skills for inclusive employment and economic growth". The programme is training more than 200 people in its first phase, which runs over 2023–24.

Ayana is now planning to provide skills programmes at every site it develops and the shareholders are supportive of the costs necessary to achieve these outcomes. The company is funding the programmes itself; part of that funding is from spending mandated by Section 135 of the 2013 Companies Act,[22] says Nishant Kumar, Ayana's senior vice president, quality and sustainability.

Amin at BII adds: "We recognised that the need to upskill is really important, and we also have gender objectives. In India, there's a real need to bring women into good quality jobs. So these things came together ... There was a recognition that this is a really good example of what we mean by investing to support a good just transition."

21. https://backend.ayanapower.com/storage/media/1689763831-64b7bff7b78e0.pdf
22. Section 135 requires companies in India above a certain size to allocate at least 2% of their profits to corporate social responsibility initiatives.

Putting a value on social investments

Although the sums invested by Ayana in its training programmes are not substantial within the company's overall costs, they nonetheless do represent an investment of its resources. However, neither the company nor its investors have sought to assess the economic return of that investment. "Generally, it's quite early days" in terms of quantifying the value-add of such programmes, says Amin. "We have a lot of discussions around gender, and the benefits of a more diverse workforce, but we haven't yet quantified how that adds value to our investments." She notes that gender is a "more mature" issue than just transition.

Giri notes that "Ayana's efforts towards skills development also led to positive outcomes in [the] form of the company's operational capabilities in the regions where it operates." He says the company often develops pipelines of projects close to existing sites. Its skills initiatives "ensure that incremental project execution in these regions and asset management at existing locations achieve operational maturity at a much faster pace," he adds.

Anand also notes that training programmes can provide further value by helping to reduce the local opposition that any type of development can provoke. "These projects involve a very large amount of investment, and that can encourage some local stakeholders to be unreasonably difficult ... It's harder to be unreasonably difficult when they can see that the project is positive for the local community and that people in the community are benefiting from getting education," he says. He also argues that the just transition work contributes to Ayana's reputation as a well-run company, alongside a range of other factors, such as respect for the law and good employee relations. "Each condition is necessary but not sufficient, and the absence of any one of them can be quite fatal for that reputation," he says.

However, it can prove challenging to recruit individuals to training programmes, especially women, and sometimes difficult to ensure that they complete the course. Social pressures in conservative communities can discourage women from acquiring the skills needed to enter the workforce. Part of the answer, Kumar says, lies in the company itself appointing women to technical positions. "This effort is helpful in changing social beliefs and practices," he explains.

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Ayana offers an example of how DFIs and institutional investors can promote just transition practice.

The demonstration effect

Amin describes Ayana as representing "a confluence of things coming together". The company provided an opportunity to combine BII's focus on climate and gender issues with the need to increase the skills base within the renewable energy sector in the country.

BII created Ayana as a platform into which other investors could subsequently co-invest, notes Amin, meaning that the company's emphasis on just transition issues has helped demonstrate their importance to these co-investors. Ayana also offers an example of how DFIs and institutional investors can promote just transition practice.

Amin says that there is still some confusion within the development finance community about what just transition means. "For a long time, people have conflated just transition with climate justice. This is often translated as developing countries' 'right' to continued reliance on fossil fuels." She describes that interpretation of climate justice as "outdated", given advances in the clean energy economy and, more importantly, notes that it also overlooks the focus on the just transition for workers and communities. "That's what we're talking about, and that is what is enshrined in the Paris Agreement."

Ayana's work also demonstrates that the just transition is not only relevant at the policy level, says Amin: "Our work with Ayana offers a practical case of what DFIs can do to enable a just transition through investments and technical assistance programmes." With growing attention to the need for a just transition, other DFIs are also starting to consider this.

Meanwhile, Giri at NIIFL notes that working with Ayana on its just transition programme has helped reinforce the relevance of the issue at the investor.

Amin acknowledges some of the challenges and sensitivities in promoting the concept of the just transition, given the links to the transition out of coal-fired generation. "Ayana is a good example of the positive side of the just transition, and about how you can integrate the socioeconomic agenda into climate-related investments and finance," she says.

The company is also looking to deepen its relationships with India's government, at both the national and state levels, to leverage the work it is doing on skills development. The company is working within the framework of the Indian government's National Skill Development Corporation and Green Job Sector Council, Nimbargi says. He adds that Ayana is also talking to state governments about collaborating with them on skills training. "Governments in the states have considerable funding; we're trying to see if these funds can't be better utilised and channelled to ensure more people are employed," he says.

Nimbargi believes that Ayana's work on ESG in general, and skills development in particular, offers an example to other companies across India. "We would like to see more companies seeking ESG ratings ... so that India becomes a market where most of the companies have high standards in terms of ESG. We look forward to more companies in this sector driving this skilling and employment."

This is a sentiment endorsed by Shah at SEWA. "This is a very interesting and important model which needs to be replicated, in terms of what Ayana has been able to do on training women and generating employment opportunities ... There is a need for more partnerships between private sector companies, governments and workers organisations to collaborate and invest in skills development," she says, and she would like to see more progress in women finding employment after such programmes.

Importantly, skills development should not overlook the promotion of informal employment and entrepreneurship in 'the last mile' of clean energy deployment and use – promoting, facilitating access to, installing and maintaining domestic clean energy systems and energy-efficient appliances, Shah says. "India has a large population of young people, with intrinsic entrepreneurial skills. How do we channel them into the renewable sector, and help rural households strengthen their climate action?" she adds.

Photo: Chris Watt Photography

Lessons learned: observations from Nick Robins, Executive Director of the Just Transition Finance Lab

Ayana's work with local communities and on skills development demonstrates how a deliberate focus on the just transition can produce positive development and gender outcomes. From a finance perspective, it shows that this can also lead to a reduction in social risk along with increased access to the skills urgently needed for clean energy expansion. Importantly, the case charts a progression from grant funding through corporate social responsibility spending to core business investment in developing human resources.

The Ayana example also illustrates how DFIs and institutional investors can play a vanguard role in stimulating the market transformation that's needed not only for clean energy expansion, but also for making the just transition core business practice.

Strategically, this experience, along with that of many other clean energy firms, will need to be refined, developed and scaled up to triple renewable energy by 2030 – a goal which all countries committed to at COP28 in 2023 – and generate high quality employment for India's women and men in the process. Financial institutions such as commercial banks, institutional investors and public finance institutions can help to help to make this happen by incorporating just transition principles into their net zero plans and capital allocations.

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