



Our World, Our Work

Toward a Youth-Inclusive Green Economy:

Five Levers for Scaling Positive Change in the Next Five Years



EDC

Education
Development
Center

SUMMARY

Youth hold the potential to drive a just transition of the world's economy while speeding adaptation to climate change. To unleash this potential, evidence suggests that youth-inclusive green job growth can be achieved when diverse stakeholders are able to connect bottom-up subnational assets and opportunities with the larger commitments, policies, and financing happening at the global and national levels.

Through its implementation research and consultations with diverse stakeholders in the 20+ countries in which it operates, Education Development Center (EDC) has identified five main levers of change that can address the gap between global and national priorities.

These solutions (i.e., these five levers) are needed to catalyze inclusive transitions to a greener and more equitable and sustainable economy:

- 1. Coordination**
- 2. Information**
- 3. Education and skills**
- 4. Financing**
- 5. Social inclusion**

Exploring the evidence around each lever, this paper offers a set of near-term (five-year) actions that diverse stakeholders can undertake to propel a more youth-inclusive green economy at scale.

BACKGROUND

The impacts of climate change and the world's aim to reach net-zero targets under the Paris Climate Accord are transforming the global economy in a way that is revolutionizing the future of work. As the world shifts to a more circular and low-carbon economy, businesses along entire value chains are transforming how they operate, requiring workers to acquire new skills, knowledge, and practices. If not accompanied by intentional policies and programs for economic inclusion, these shifts have the potential to further marginalize young people and especially women in low- and middle-income countries (LMICs)—groups that are already more likely to be undereducated, unemployed, or underemployed in unstable work in the informal economy.^{1,2} This shift will be particularly prominent in Africa, which already has a large proportion of youth and a population that is expected to double by 2050. These shifts are also further underscored by a world that is increasingly interconnected—the World Bank estimates that between 154 and 435 million workers are engaged in online task-based, contract work³—as well as a world of work characterized by an increasing presence of generative artificial intelligence, the Internet of things, and technology.

At the same time, the transition to low-carbon economies holds great potential to reduce unemployment of youth and other marginalized groups while also tackling poverty and climate change. The shift to clean energy alone is producing a displacement of jobs while also creating net positive new jobs.⁴ With access to the right skills, networks, and assets, young people could not only become part of the green economy,⁵ but they could help drive it. Youth have proven that they can challenge world leaders in powerful ways;⁶ they are more likely to engage in climate activism;⁷ many are driving innovations through social enterprises,⁸ and many aspire to obtain a green job.⁹



Photo: USAID Philippines Opportunity 2.0/Lisa Marie David

Bridging the Divide:

Through the Our World, Our Work initiative, EDC has committed to a 10-year mission to meaningfully integrate at least 1 million young people into the green economy and empower them toward climate action.¹⁰ Our commitment was initially inspired by our partners in the 20+ countries where EDC currently operates, who were indicating a disconnect between the climate change policies, programs, dialogues, and investments happening at the international and national levels and the realities of the priorities, assets, and capacities of diverse stakeholders at the local level.

Prompted by these conversations, EDC launched a series of green jobs labor market assessments¹¹ and a desk review of green economy trends in LMICs, looking at the nexus of climate change, green jobs, and youth employment. We coupled this investigation with our ongoing implementation research and program evaluations to better understand effective approaches and models for scaling youth employment opportunities in the green economy in LMICs.

This research suggests that growing a youth-inclusive green economy requires an **intentional systems strategy at a subnational (local or “meso”) level**—one that augments and puts into practice global and national priorities. According to an emerging body of evidence on youth employment and workforce development in LMICs, transformative outcomes at scale occur when diverse actors strategically come together from the bottom-up to bring about change under a common driving vision. They learn and iterate solutions together, building upon the strengths that each brings to the table. When the results of their efforts are supported by data and translated into user-friendly communications, demonstrating “what can be” is a powerful attractor that motivates others to innovate and take solutions to scale.^{12,13,14,15}

Growing inclusive green jobs therefore requires a multi-stakeholder commitment, not only at the national level, but also at the subnational level where policymakers, the private sector, educators, service providers, and young people and their communities can leverage their respective priorities and assets to drive local economic growth, while also putting in place the incentives needed to spur the adoption of more sustainable practices.



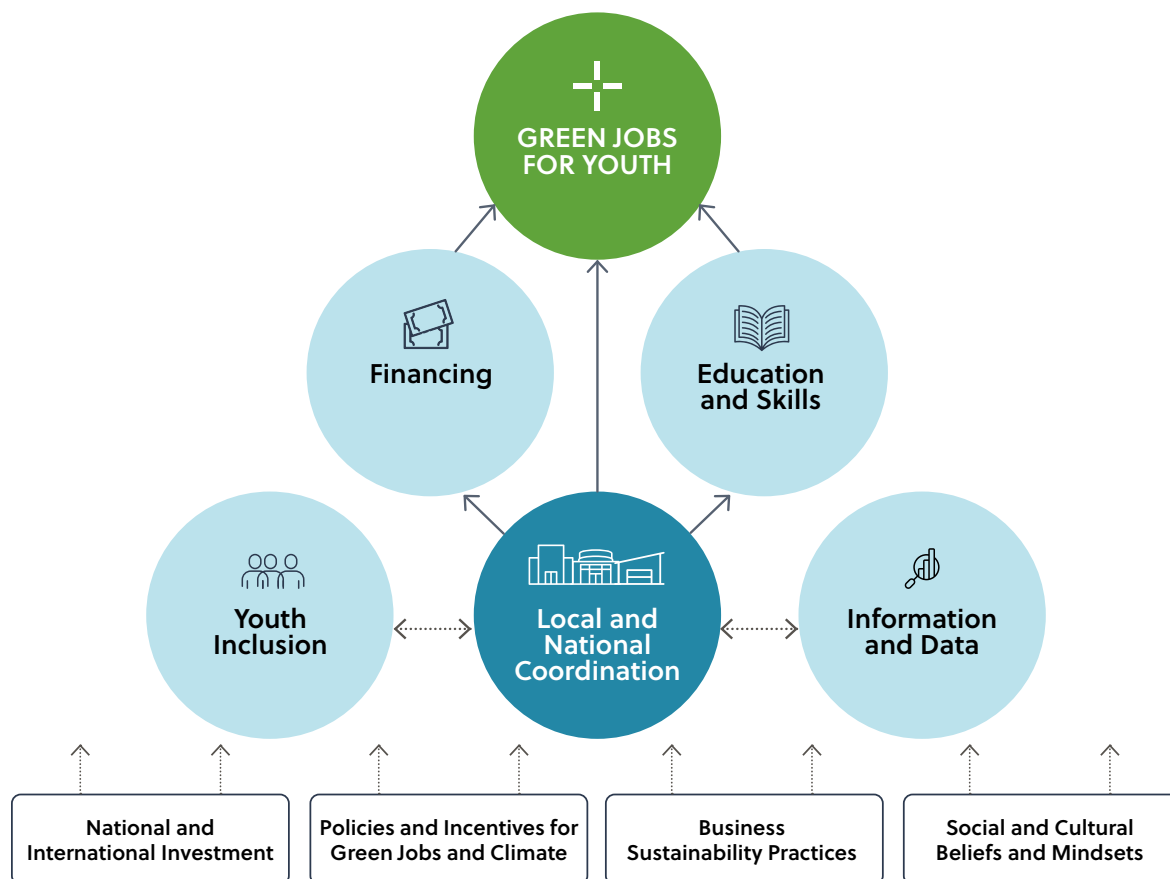
Growing inclusive green jobs therefore requires a multi-stakeholder commitment, not only at the national level, but also at the sub-national level.

Our research suggests that these system actors can grow a youth-inclusive green economy by closing five salient gaps at the subnational level—what we call levers for change:

1. **Local coordination** for decision-making, policies, and practices
2. Decentralized **information and data** on the green economy
3. Green work readiness **education and skills**
4. Equitable access to **finance**
5. Shifting norms and practices around **youth engagement and social inclusion**

Figure 1 illustrates the relationship between these levers of change. This background paper provides the research and experiences for each of these levers. It also offers a series of recommendations that different actors can take over the next five years to advance an inclusive, just transition.

Figure 1. Closing five gaps for a youth-inclusive green economy



Local Coordination for Decision-Making, Policies, and Practices



THE COORDINATION GAP

In many countries, national policies on climate resilience and green jobs are often slow to translate at the subnational level, or they tend to be implemented sporadically by the line ministries responsible for enacting these policies. Moreover, as there is no commonly held standard for what constitutes a “green job,”¹⁶ and because industries and businesses interpret sustainable practices in different ways, many local governments remain unclear about appropriate policies to boost green job growth or how and where to channel green investments.

Solutions:

To help address the subnational policy coordination gap,¹⁷ several international policy guidelines call for **subnational coordination structures** to align public policies, practices, and services with the needs of the private sector and the priorities of local communities, including marginalized groups. These mechanisms are usually led at the district level or by the mayor’s office and involve local government representatives, businesses, civil society organizations, education and training providers, and young people who are committed to achieving an inclusive green economy.^{18,19}

Examples:

An example of such a mechanism is found in the Philippines, where a Green Jobs Act mandates the state to develop training and certification programs for the green economy. According to a green labor market assessment conducted under an EDC program, officials within the Ministry of Education and the Department of Trade and Industry report that most green skills training programs have been developed in an ad-hoc fashion. As a result, local government units and employers say that the programs do not adequately reflect the actual green economic demand in their local communities.²⁰ In response, municipal-level Youth Development Alliances in over 12 municipalities of the Philippines have helped local government representatives coordinate with industry leaders and education training providers on their local priorities, including the growth of the green economy. These alliances meet regularly to harmonize programs and policies and to mobilize public and private resources toward youth education, employment, and entrepreneurship goals. These coordination bodies are ensuring that the supply of skills meets the demands of their local green economy, and they also are making efforts to ensure that all youth have pathways for employment and entrepreneurship in the green economy. In one recent example in Angeles City, the Youth Development Alliance launched Project Angelinis to garner multi-stakeholder support for the mayor’s priorities in the waste management sector.

“We cannot solve these problems on our own, but need to work together to create the world we want to live in.”

—Dyanne Rose Luna, Youth Leader, Philippines

Actionable measures within the next five years:

- + Invest in the creation of **subnational public-private alliances** that are advancing an inclusive green jobs agenda in their local area.
- + Scale existing subnational public-private green jobs alliances to other districts or countries through **sister city twinning or coaching models**, and/or scale industry-based promising practices to LMICs by connecting industry associations and/or green sector learning networks to municipalities and districts in LMICs.

Decentralized Information and Data on the Green Economy



THE INFORMATION GAP

Inadequate market data stymies the upgrading of skills, creates a supply and demand disconnect, and can reduce productivity and suppress investment in a local economy. While data on green economic indicators and trends, policy priorities, or solutions may be generated at the international and sometimes national levels, little of that information is offered at the level of detail that is useful for local policymakers, small- and medium-sized enterprises (SMEs), young job seekers and their families, and the education and training providers that serve them. EDC's research has so far identified over 270 different occupations in the fastest growing green and blue sectors in LMICs: renewable energy, green construction, waste management, tourism and hospitality, and sustainable agriculture and forestry. However, in speaking to local workforce development stakeholders in at least a half a dozen countries (e.g., training providers, local government, and young job-seekers), few were aware of these opportunities.

Solutions:

To address this challenge, there is an enormous need for **decentralized labor market information** systems. Local labor market data enhances and supplements national data by translating country policies and national qualification frameworks into the realities of the local economy.^{21,22} Local labor market information systems are critical to stimulating the green economy as they provide the information that the local public and private sector actors need to align their interests, investments, and priorities for addressing climate change adaptation and mitigation.

Decentralizing green labor market data can happen through a number of channels. Among the public solutions, regional and local governments can

1. Be included in skills assessment exercises
2. Invest in creating regional observatories for employment and training
3. Conduct targeted studies in polluting industries that have workers at risk of displacement due to the green transition²³

EDC's experiences show that an effective way to build agile local labor market information—sustainably and at scale—is by developing the capacity of public-private task forces (i.e., local service providers, local government units, and youth leaders) to conduct local labor market assessments.²⁴ Another way to support local labor market data is to incentivize crowdsourcing and/or revenue-based models that use information technology, social media, and other forms of mass media to generate and share data. This approach can be particularly effective in relatively robust economies and/or population-dense areas.^{25,26,27}

Example:

Leaders in some countries are starting to experiment with more dynamic market information systems for green job growth. For example, in Rwanda, the **Rwanda Development Board (RDB)** is working with EDC to conduct a rapid **green local labor market assessment**, which identifies short-term growth and employment trends in Rwanda's tourism and agriculture, forest, and fisheries sectors, as well as occupational profiles and skills requirements for high-potential jobs in those sectors. Thus far, the assessment has found that the protection and cultivation of buffer zones around lake areas can lead to over 35,000 green job opportunities for youth who are neither in employment nor in education or training. These opportunities can be found through terracing and diversified buffer zone activities, such as bamboo cultivation (sustainable furniture), fruit and edible flowers, beekeeping, organic compost and fertilizers, and fish larvae and fish feed. As this data is further built out, RDB plans to use it to inform education and economic policymakers about the appropriate ways to channel their policies and programs. Meanwhile, EDC has built the capacity of public and private stakeholders in 10 municipalities to conduct further labor market assessments and share that data on a regular basis.²⁸

Actionable measures within the next five years:

- + **Invest in local green labor market assessments** that generate and disseminate data among a wide network of local actors, and use this data to initiate dialogues around local priorities, policies, and programs in support of youth-inclusive green job growth.
- + **Invest in capacity development efforts** in which municipal-level actors (i.e., local government units, education and training providers, and youth leaders) learn how to coordinate, collect, and share relevant market data on the green economy in their area. Evidence suggests that with initial, modest investments over two to three years, these actors will be able to sustain the collection and share the market data over time thereafter.
- + In sufficiently robust economies (and/or cities and densely populated areas), **catalyze mass media, social media, and youth-led crowd sourcing to disseminate labor market information**. Evidence suggests that initial, modest strategic subsidies over two to three years will catalyze market actors to share labor market information on an ongoing basis.

Green Work Readiness Education and Skills



THE EDUCATION AND SKILLS GAP

Faced with minimal attention within most Nationally Determined Contributions²⁹ as well as with a \$100 billion funding gap,³⁰ a global teacher shortage,³¹ and outdated technical and vocational curricula, education systems in LMICs struggle to keep pace with the rapid education and skills demands brought on by climate change. Indeed, the demand for green economy and climate-resilient skills is ever-changing and increasingly complex. In addition to the critical basic skills of literacy and numeracy (see Figure 2), the green economy relies on a foundation of science, technology, engineering, and math (STEM) skills, as well as transversal skills such as ecological literacy, digital skills, and soft skills.³² Jobs requiring basic knowledge of environmental and sustainability management are in high demand.³³ Finally, higher value-added jobs require additional technical training in green and blue skills specific to industries such as renewable energy, waste management, green buildings, sustainable agriculture, and eco-tourism.

Solutions:

Secondary schools offer a cost-effective entry point to impart green skills to a broad population at scale. Over the past two decades, many education systems in LMICs have tapped into the power of secondary schools to innovate and institutionalize demand-driven, transferrable 21st century skills, preparing young people for the changing demands of the global economy. Lessons from these experiences equally apply to the new demands brought on by climate change and the green economy. A growing body of evidence show that a few key education and skills interventions lead to positive outcomes for both employers (in increased productivity and employee engagement) as well as young job seekers (in improved earnings and employment).

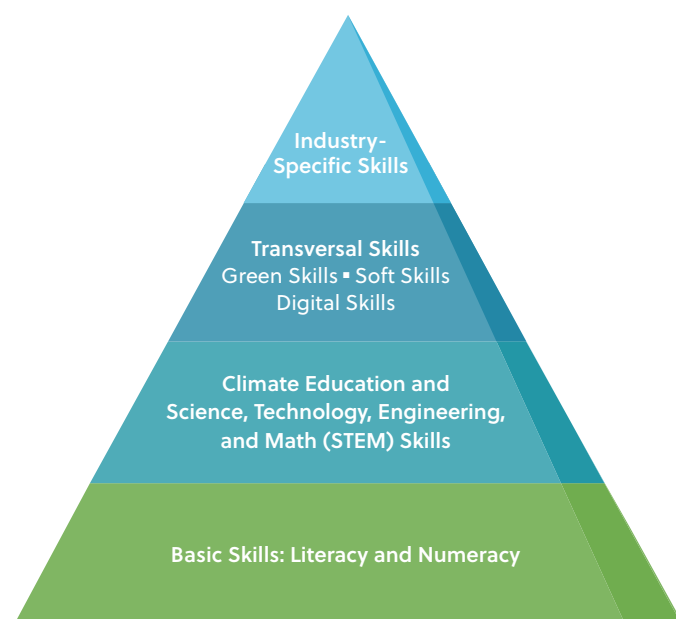


Figure 2. Green Jobs Skills Requirements for a Just Transition

In order to adapt to the changing skills needs of the circular economy, national and local education systems can develop flexible, modular curriculum with stackable credentials that prepare learners from the most basic skills, to STEM and durable transversal skills, to industry-specific green skills.

Those interventions include

1. Youth's early exposure to the world of work and practical work-based learning experiences³⁴
2. Integration of transferrable soft skills development into existing curricula³⁵
3. Entrepreneurship training and business consulting support, including access to capital and financial literacy³⁶
4. University-based career centers for university students and graduates.³⁷

When implemented with scale in mind from the outset, these interventions have demonstrated to be cost effective, scalable, and sustained at the national level.³⁸

Examples:

Nearly 10 years ago, the **Government of Senegal** recognized that its young people were emerging from its education system ill-prepared for the realities of the changing economy. In 2015, the Ministry of National Education and the Ministry of Technical and Vocational Education and Training (TVET) committed to integrating market-driven work readiness skills and after-school entrepreneurship clubs into its lower secondary schools and TVET institutions. Over a five-year period, and with funding support from the Mastercard Foundation, the two Ministries worked closely with EDC to institutionalize these approaches in 250 schools nationwide. Rather than adding an entirely new, burdensome curriculum into the system, EDC worked closely with the Ministries to develop a cost-effective set of modules and approaches that were integrated into the existing curricula. Today, an estimated 40,000 students per year are accessing demand-driven work readiness skills and entrepreneurship and career development support, and the Government of Senegal continues to expand the model to the national TVET system, the national apprenticeship program, and 200 more schools in the secondary school system.

Across 11 countries of Southeast Asia, young university leaders are being empowered to act on environmental issues and to contribute to the sustainable development of the Mekong region.



Photo: Community Empowerment for Racial and Environmental Justice in the Asia Pacific Region, Indonesia

Through the USAID Young Southeast Asian Leaders Initiative – Mekong Program (YSEALI-Mekong), youth take online courses on the environment, biodiversity, and climate change in the Mekong, coupled with leadership development. Youth apply what they learn through a work-based learning project in partnership with a company, university, or nonprofit organization. They connect with mentors and global climate change experts and can access changemaker grants, professional growth courses, and alumni networks. This initiative is hosted by the Vietnam National University – Ho Chi Minh City’s Institute for Leadership Development, which is serving as a regional center to sustain the program through a network of 95 local, regional, and international universities and organizations. The program will reach at least 700 leaders in the first three years and is expected to serve thousands of young leaders annually thereafter.

Actionable measures within the next five years:

- + Schools, teachers, administrators, and line ministries can **integrate cost-effective, green, work-based learning opportunity programs into existing secondary school and TVET curricula**. In places where this is not immediately likely, nongovernmental organizations (NGOs) can offer or expand after-school, work-based learning services for youth, collecting rigorous data (including cost data) along the way and using this data to generate proof-of-concepts for relevant Ministries to consider for integrating such initiatives within the secondary school system.
- + Similarly, secondary schools and TVET institutions can adopt **green entrepreneurship clubs** as an in-school or after-school program for youth to learn in-demand green skills, business skills, and financial literacy.
- + Higher education institutions can establish and scale online and/or in-person **youth leadership and career development programs** that incorporate sustainable development concepts, climate action, social entrepreneurship, work-based learning, and career and leadership development. Together they can create a network of higher education institutions that can pave the way in comprehensive climate education, green jobs, and climate leadership and career development for youth.
- + Second chance and postsecondary institutions can offer a certification and/or credit for **Sustainability in the Workplace and Sustainable Supply Chain Management courses** for skills that are in high demand globally and especially in LMICs where many suppliers and upstream actors have not yet introduced sustainability practices. These courses would introduce sustainability practices that are industry- and context-specific; transferrable across industries; and targeted toward youth as workers, business leaders, sustainability consultants, and entrepreneurs.

Equitable Access to Finance for Youth in the Green Economy



THE FINANCING GAP

While there are enormous investments going into modernizing sectors and toward climate finance,* it remains to be seen how much of and when that investment will be directed toward the priorities of young people and specifically for youth- and women-owned businesses. An innovation mindset and entrepreneurial culture are crucial to accelerate the transition into the green economy, and young people have the energy and creativity to be agents of change. Companies around the world have been shown to benefit from investing in a more diversified supply chain,^{39,40} and the same could be said for businesses in the green economy.

Solutions and examples:

Several financing solutions are emerging from the public and private sectors to stimulate youth's inclusion in a growing green economy (*Table 1*).

Table 1. Emerging practices for expanding youth-inclusive green finance

Public Sector Models for Youth-Inclusive Finance	Private Sector Models for Youth-Inclusive Finance
Several national and local governments have established preferential public procurement programs as a way to boost enterprises owned by youth, women, and people with disabilities. ^{41,42,43,44,45} Such public procurement quotas could be equally relevant for promoting youth- and women-owned green businesses under a just transition. ⁴⁶	More than ever before, financial institutions are pursuing concessional financing arrangements or other de-risking instruments for youth-inclusive financial products and services. ⁴⁷ In addition, e-wallets and mobile credit scores are beginning to unleash financing for youth entrepreneurs. With the right incentives, both measures hold promise for young entrepreneurs in the green economy. ⁴⁸
Targeted green fund subsidies and public works programs: The Rwanda Green Fund is one of Africa's flagship environment and climate change investment funds. Established by the Government of Rwanda in 2012, it has a goal of reducing greenhouse gas emissions by 38% by 2030. The fund includes a Youth Engagement Plan, a Youth Task Force, and a Gender Strategy and Action Plan.	Youth-inclusive value chain financing has enabled young people to start or grow green businesses or to "greenify" their businesses. In Ghana, solid waste management companies financed the creation of youth-led micro-franchises for household waste collection and separation. ⁴⁹ Value chain financing has also helped create new value chains in the sector, ⁵⁰ such as organic fertilizer made from household food waste compost or building materials made from recycled thin film plastics. ⁵¹
While tax credits and incentives for individuals and businesses to adopt clean energy and low-carbon practices have been adopted in many high-income countries, they are less common in LMICs, where import taxes on renewable energy and other low-carbon technologies tend to persist. Engaging young people in climate action and advocacy can open the dialogue for removing these financing barriers and opening up green job opportunities.	Strategic subsidies: Emerging green sectors tend to be characterized by a relatively small number of businesses and other actors that are taking risks to adopt and innovate in new ways. These champions often need a boost for start-up or to build upon their newly emerging success. Moreover, successful entrepreneurs are slow to decarbonize their processes and/or to offer green products and services. Strategic incentives to these lead firms can create demand further upstream in the supply chain, particularly if the incentives are structured to support enterprises owned by youth or marginalized groups. ⁵²

*Examples include the Green Climate Fund, Global Environment Facility, Adaptation Fund, and other multilateral, bilateral and philanthropic sources.

Based on these examples, there are two common threads among these solutions:

1. **Youth are intentional participants and leaders** in the solution and
2. Development partners may often play an initial **incentivizing role** (through training, technical assistance, or temporary subsidies) for the public or private sector to iterate, test, and adopt the innovation.

Meanwhile, **financing for the education sector** needs to be high on the climate change agenda, and a just transition will not be possible if the workforce lacks basic and technical skills needed to drive the process of decarbonization. When it comes to integrating environmental education, youth climate action, and green work readiness into secondary school and TVET curricula, evidence suggests that youth skills development initiatives need not require a major overhaul of the system, but rather a re-alignment of priorities and resources within the existing system, as these skills can be incorporated into existing courses.⁵³ Such financing decisions also rely on robust data, including cost analysis,⁵⁴ that demonstrates how to institutionalize and scale the new curriculum.⁵⁵ Furthermore, national and subnational governments with existing scholarship programs can make efforts to ensure that these programs are reaching the most marginalized youth looking to serve as tomorrow's climate leaders.

Actionable measures within the next five years:

- + Line ministries in the **education and TVET sectors can conduct cost analysis** exercises that identify incremental budget shifts necessary for the **integration of green work readiness skills** into the national curriculum. This process can be the first small step that is practical and actionable yet transformative, and it can also be a stepping stone to a larger reform process.
- + **Financial institutions** in LMICs can expand their products and services to youth green entrepreneurs by using existing tools, such as the Y-Initiative Compendium developed by Dutch Entrepreneurial Development Bank – FMO,⁵⁶ and with de-risking instruments offered by development partners.
- + Governments and development partners investing in specific green sectors can finance **strategic subsidies** that support the greening of enterprises and the growth of green enterprises led by youth, women, Indigenous people, and other marginalized groups.



**Youth are intentional
participants and leaders
in the solution.**

Shifting Norms and Practices around Youth Engagement and Social Inclusion



THE SOCIAL INCLUSION GAP

LMICs are disproportionately affected by climate change, yet they are the least responsible for historic levels of greenhouse gases. Indigenous people particularly are excluded from climate policy formation, program design, and mitigation and adaptation funding, even though Indigenous knowledge and practices are crucial for addressing these challenges. As economies worldwide decarbonize, existing workers in certain industries will be especially affected—yet most countries globally have not put in place the safety nets and programs to support displaced workers and help them transition to greener industries and jobs.

Solutions:

Social inclusion, as a sustainability practice, is becoming a necessary part of competitiveness in today's global economy.^{57,58,5,60,61} A growing body of evidence is showing how the **private sector** is including young people and other marginalized groups in employers' talent pool, their workplace culture, their supply chains, and their customer base.⁶² In LMICs, **youth-led and youth-serving organizations** and development partners often play a role in catalyzing social inclusion across the private sector, namely by providing financial or non-financial incentives, by preparing youth for entry into the workforce talent pipeline, by creating a demonstration effect, by launching behavior change campaigns, or by advocating for the reform of youth economic inclusion policies.⁶³ Together, businesses and youth-serving organizations play an important role in tapping into the power of young people in the just transition. The public sector can also play a role too. When establishing policies, designing programs, and directing new funding or financing vehicles, organizations can consider intentional mechanisms for the meaningful engagement of, inclusion of, and prioritization of populations most impacted by climate change. These groups most often include women, out-of-school youth, people with disabilities, Indigenous people, and other groups that have been historically disadvantaged or marginalized.

Promising examples:

Guyana is allocating 15% of revenues earned from its international sale of verifiable carbon credits to Indigenous communities to support implementation of their sustainability plans. The carbon credits, earned by protecting Guyana's vast rain forests, are issued through the REDD+ Environmental Excellence Standard, under the UN Framework Convention on Climate Change.

South Africa's Green Economy Accord aims to promote green transition and reduce reliance on coal. The country's Department of Higher Education and Training is implementing training programs to support the low-carbon transition in 11 Further Education and Training Institutions.

The Government of Colombia's National Training Service has partnered with USAID to provide young people in Indigenous Wayúu communities with vocational training to work in the renewable energy economy.

In Rwanda, a network of 48 companies adopted **work-based learning programs for youth with disabilities**, and is modeling this approach to other companies across the country. Participating companies have reported high levels of productivity among the interns, 45% of whom were gainfully employed following the internship. One business, a sustainable bamboo furniture company, covered the costs of sign language lessons so that they could hire more workers who were deaf and hard of hearing.



In the **Philippines' waste management sector**, youth-led social enterprises are ahead of the traditional private sector in taking new technologies to market. In Quezon City, where the mayor has prioritized youth engagement in the green economy, the government partnered with a national youth organization to launch an environmental advocacy campaign led by out-of-school youth.

Actionable measures within the next five years:

- + Green jobs projects, policies, and investment facilities can engage young people in the **assessment, co-design, implementation, and evaluation** of these opportunities, while taking steps to ensure that youth have the necessary skills and supports to do so in a meaningful way.
- + Institutions involved in climate change or the green economy can make organizational or program commitments to designate **measurable benchmarks, targets, quotas, and/or set-aside funding** for engaging and reaching youth and marginalized groups. Institutions can adopt and conduct social inclusion audits on a regular basis.
- + Employers and youth-serving organizations can partner to establish **work-based learning programs**—an evidence-based way to successfully onboard and orient marginalized young people into the workplace.⁶⁴
- + Climate or green jobs policies and programs must incorporate the **skilling, re-skilling, and technical assistance** to groups looking to integrate into the green economy. Those same policies and programs should also include the upgrading of green entrepreneurs in the informal economy, where youth, women, and other marginalized groups are more likely to be employed.
- + Education and training providers can **incorporate Indigenous and traditional knowledge and practices** into pedagogies, skills and technical assistance.








Photo: Programme de Formation Professionnelle et d'Insertion (GFPI), Senegal/Raymond Diop, AD Agency

Conclusions and Recommendations

By connecting bottom-up subnational assets and opportunities with the larger commitments, policies, and financing happening at the global and national levels, these actions within the five levers of change can accelerate a just transition while making individuals and communities more resilient to climate change.

Table 2, page 18 summarizes the actionable measures that can be taken within a five-year time frame to move toward youth-inclusive green job growth. →

Table 2. Recommendations: Five levers of change for a youth-inclusive green economy

Gap Area	Solution	What This Can Look Like
 Coordination	Support the formation, strengthening, or expansion of subnational coordination bodies for the greening of jobs and the growing of the local green economy	In 5 years: <ul style="list-style-type: none"> + 10–25 subnational public-private alliances are advancing an inclusive green jobs agenda across a select country. + Subnational public-private green jobs alliances are being scaled to other districts or countries through sister city twinning, coaching models, and/or learning networks.
 Information	Invest in decentralized labor market information systems that generate local green economic data	In 3 years: <ul style="list-style-type: none"> + At least 50 public-private task forces—municipalities, service providers, NGOs, and youth—are regularly collecting and sharing green labor market data. They then use that information to inform policy, skilling programs, business start-ups, job placement services, and resource flows. + A network of 20+ private media outlets (locally or nationally) have developed and are delivering sustained programming around green job opportunities.
 Education and Skills	Support the integration of green skills and climate mitigation and resilience skills into secondary, postsecondary, and second-chance education	In 3 years: <ul style="list-style-type: none"> + A youth climate leadership and work-based learning program is available through a network of 100+ universities and 5,000+ employers. + A Sustainability in the Workplace and/or Sustainable Supply Chain Management course is being offered for credit or certification to secondary and postsecondary students in three languages. It is being rolled out by training institutions in six countries. In 5 years: <ul style="list-style-type: none"> + A Ministry of Education has piloted and institutionalized a green work-based learning program into its secondary and technical schools. + A Ministry of Education has institutionalized after-school Green Entrepreneurship Clubs for secondary school students nationally.
 Financing	Re-orient education funding for climate and green economy skills Expand financial products, services, and subsidies at public and private levels to youth and women who are at the forefront of green jobs innovations	In 3 years: <ul style="list-style-type: none"> + A Ministry of Education has completed a cost analysis exercise and determined viable options for institutionalizing green work readiness skills development into secondary schools and TVET institutions at the national level. In 5 years: <ul style="list-style-type: none"> + At least five financial institutions have innovated and rolled out new financial products and services for youth green entrepreneurs. + Youth-focused green subsidies are able to demonstrate their green growth and job creation effects at scale in select sectors. These sectors include sustainable agriculture, forestry, waste management, tourism, green buildings, and clean energy.
 Social Inclusion	Create processes and mechanisms for the meaningful engagement of, inclusion of, and prioritization of populations most impacted by climate change, including youth	In 3 years: <ul style="list-style-type: none"> + Tens of thousands of youth leaders are engaged in assessment, monitoring, and evaluation of green economy programs and policies; policy formation and dialogue; and the co-design and implementation of solutions. + Organizations or institutions have set and are meeting measurable benchmarks, targets and/or set-aside funding to reach and engage youth in the green economy. In 5 years: <ul style="list-style-type: none"> + Youth-led advocacy efforts realign green jobs policies and programs, including the re-skilling and upgrading opportunities for youth and women entrepreneurs in the informal sector.

Endnotes

- ¹Young people ages 15 to 24 are three times more likely to be unemployed than adults. Source: UNICEF Global Development Commons. (2020, May 6). Youth unemployment: The facts. <https://gdc.unicef.org/resource/youth-unemployment-facts>; In 2022, 15.6% of youth were unemployed, compared to 5.8% of the total unemployment rate. Sources: World Bank Open Data. (n.d.). Unemployment, youth total (% of total labor force ages 15–24) (modeled ILO estimate). <https://data.worldbank.org/indicator/SL.UEM.1524.ZS>; World Bank Open Data. (n.d.). Unemployment, youth total (% of total labor force) (modeled ILO estimate). <https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS>
- ²Informal employment tends to be higher among youth: 46.2 percent of employed youth are in the informal economy, compared to 40.4 percent of adults. Source: International Labour Office. (2018). *Women and men in the informal economy: A statistical picture*. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf
- ³Datta, N., Rong, C., Singh, S., Stinshoff, C., Jacob, N., Nigatu, N. S., Nxumalo, M., & Klimaviciute, L. (2023). Working without borders: The promise and peril of online gig work. World Bank. <https://openknowledge.worldbank.org/handle/10986/40066>
- ⁴While carbon-intensive industries expect job losses over the next several years, the entire economy expects a net increase of at least 18 million jobs from the transition to clean energy and an additional 7 million jobs from the circular economy. Source: International Labour Office. (2018, May 14). *World employment and social outlook 2018: Greening with jobs*. https://www.ilo.org/global/publications/books/WCMS_628654/lang--en/index.htm
- ⁵EDC refers to the “green economy” as an economy that (1) aims to reduce environmental risks, (2) is low-carbon and resource efficient, and (3) prevents environmental degradation or loss of biodiversity and ecosystem services. Importantly, the shift to a green economy involves a just transition—one that creates decent work for all and advances human well-being and social and economic equity. In this context, “green jobs” are decent jobs that reduce the consumption of energy and raw materials, limit greenhouse gas emissions, minimize waste and pollution, protect and/or restore ecosystems, and enable enterprises and communities to adapt to change. We also acknowledge “blue jobs” as a subset of green jobs that focus on bodies of water and aquatic eco-systems and industries. (Sources: (a) UN Environment Programme “What is an ‘Inclusive Green Economy?’” <https://www.unep.org/explore-topics/green-economy/why-does-green-economy-matter/what-inclusive-green-economy>; (b) ILO (2016). What is a green job? https://www.ilo.org/global/topics/green-jobs/news/WCMS_220248/lang--en/index.htm; (c) The World Bank (2017). The Potential of the Blue Economy. Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries. <https://openknowledge.worldbank.org/server/api/core/bitstreams/cee24b6c-2e2f-5579-b1a4-457011419425/content>)
- ⁶PBS NewsHour. (2019). Greta Thunberg’s full speech to world leaders at UN climate action summit [video]. <https://www.youtube.com/watch?v=KAJsdgTPjPU>
- ⁷Ballew, M., Marlon, J., Kotcher, J., Maibach, E., Rosenthal, S., Bergquist, P., Gustafson, A., Goldberg, M., & Leiserowitz, A. (2020, April 28). Young adults, across party lines, are more willing to take climate action. <https://climatecommunication.yale.edu/publications/young-adults-climate-activism/>
- ⁸Simmons, S. (2022, April 13). *9 youth-led innovations that are protecting the planet*. World Economic Forum. <https://www.weforum.org/agenda/2022/04/9-youth-led-innovations-are-protecting-the-planet/>
- ⁹Newsroom Asia-Pacific. (2022, April 20). Companies must step up as youth seek out “green” jobs: Accenture. <https://newsroom.accenture.sg/asia-pacific/news/youthquake.htm>
- ¹⁰For more information, see Our World, Our Work. <https://www.edc.org/owow>
- ¹¹Three green local labor market assessments are currently in production: (a) Education Development Center, & Rwanda Development Board. (2023, October). *A labor market analysis of NEET opportunities in Rwanda. Harnessing the green economy to provide decent jobs for Rwandan youth not in employment, education, or training (NEET) – Sustainable agriculture, forestry and fisheries, tourism and hospitality*. (b) Accenture. (2023, October). *Opportunity for out-of-school youth in the Philippines’ blue and green economy (BGE). An opportunity 2.0 study*. Prepared on behalf of Education Development Center for the USAID Opportunity 2.0 activity. (c) Education Development Center. (2023, October). *Labor market assessment: Opportunities in agriculture for youth in Senegal*.
- ¹²The term “attractor” was developed by social scientists and has been used in systems thinking literature to describe the role that individuals, events, or projects can play in mobilizing a system. It’s when a powerful idea “resonates deeply within a system and shifts its trajectory toward new possibilities” (Seelos, & Mair). This is a shift from the concept of a pilot project, which is a demonstration to see if something can work; an attractor approach is an intentional effort to influence behaviors that are eventually embraced—in part or in whole—by different actors. Source: Seelos, C., & Mair, J. (2018, Fall). *Mastering system change*. Stanford Social Innovation Review. https://ssir.org/articles/entry/mastering_system_change
- ¹³Education Development Center. (2021). *Scaling youth workforce development outcomes by transforming local systems: A Rwanda case study*. <https://www.edc.org/scaling-youth-workforce-development-outcomes-transforming-local-systems>
- ¹⁴USAID. (manuscript in preparation). State of the evidence update: Scaling youth workforce development outcomes through youth systems.
- ¹⁵Ignatowski et al. (2021) Building youth infrastructure: Early lessons from the youth systems collaborative. Journal for Youth Development, 16(2–3). Special Issue on International Positive Youth Development. <https://jyd.pitt.edu/ojs/jyd/article/view/21-16-%282-3%29-SIA-03>
- ¹⁶StaneŃ-Puică, M.-R., Badea, L., Serban-Oprescu, G.-L., Serban-Oprescu, A.-T., Frăncu, L.-G., & Cretu, A. (2022, July 19). Green jobs—A literature review. International Journal of Environmental Research and Public Health, 19(13). 7998. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9265737/>
- ¹⁷International Labour Organization. (2022). *Just transition policy brief: Skills development for a just transition*. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_860617.pdf

- ¹⁸International Labour Organization. (2015). *Guidelines for a just transition towards environmentally sustainable economies and societies for all*. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf
- ¹⁹Atteridge, A. S. et al. (2022). *Exploring just transition in the global south*. Climate Strategies. https://climatestrategies.org/wp-content/uploads/2022/05/Exploring-Just-Transition-in-the-Global-South_FINAL.pdf
- ²⁰Accenture. (2023). *Opportunity for out-of-school youth in blue & green economy (BGE). An opportunity 2.0 study*. Prepared on behalf of Education Development Center under the USAID-funded Opportunity 2.0 activity.
- ²¹Strietska-Illina, O., Hofmann, C., Durán Haro, M., & Jeon, S. (2011). *Skills for green jobs: A global view*. International Labour Office. (https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_159585.pdf)
- ²²YouthPower 2. (n.d.). Localized labor market assessments: Process not product (Recording and slides). <https://www.youthpower.org/resources/localized-labor-market-assessments-process-not-product-recording-and-slides>
- ²³OECD. (2023). *Job creation and local economic development 2023. Bridging the greta green divide*. <https://www.oecd.org/employment/job-creation-and-local-economic-development-26174979.htm>
- ²⁴YouthPower 2. (n.d.). Localized labor market assessments: Process not product (Recording and slides). <https://www.youthpower.org/resources/localized-labor-market-assessments-process-not-product-recording-and-slides>
- ²⁵BEAM Exchange. (2023). EYE: Enhancing youth employment (Phase 3). <https://beamexchange.org/practice/programme-index/311/>
- ²⁶<https://beamexchange.org/resources/853/>
- ²⁷Anderson, G. (2016). *Inspiring and influencing the young job seekers of Albania: Case study*. <https://beamexchange.org/resources/284/>
- ²⁸YouthPower 2. (n.d.). Localized labor market assessments: Process not product (Recording and slides). <https://www.youthpower.org/resources/localized-labor-market-assessments-process-not-product-recording-and-slides>
- ²⁹To date, although 68% of Nationally Determined Contributions (NDCs) refer to education, only 26% (42 of 160) actually make child- or youth-sensitive references to education. In Africa, only 16 of the 43 NDCs mentioned climate change education at all.
- ³⁰UNESCO Global Education Monitoring Report Team. (2023). *Can countries afford their national SDG4 benchmarks?* <https://unesdoc.unesco.org/ark:/48223/pf0000385004>
- ³¹UN Chronicle. (2023, October 5). Addressing the teacher shortage—A global imperative. United Nations. <https://www.un.org/en/un-chronicle/addressing-teacher-shortage%E2%80%94A-global-imperative>
- ³²Circle Economy. (n.d.). Closing the skills gap: Vocational education & training for the circular economy. <https://www.circle-economy.com/resources/closing-the-skills-gap-vocational-education-and-training-for-the-circular-economy>
- ³³Skill Future. (n.d.). *Skills demand for the future economy*. <https://www.skillsfuture.gov.sg/skillsreport>
- ³⁴U.S. Agency for International Development. (2023). State of the evidence update: Work-based learning in youth workforce development. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>
- ³⁵U.S. Agency for International Development. (2022). State of the evidence update: Soft skills interventions. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>; Innovations for Poverty Action. (2023). *Best bets: Emerging opportunities for impact at scale*. <https://poverty-action.org/sites/default/files/2023-11/IPA-Best-Bets-Report-Updated.pdf>
- ³⁶U.S. Agency for International Development. (2023). State of the evidence update: Access to capital for young entrepreneurs. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>
- ³⁷IREX (n.d.). *What impact do career centers have on students' employability in Iraq?* <https://www.irex.org/sites/default/files/Career%20Services%20Evaluation%20Key%20Findings%20and%20Recommendations.pdf>; U.S. Agency for International Development. (2015). *Midterm performance evaluation: Sustainability of career development centers in Egypt public universities*. https://pdf.usaid.gov/pdf_docs/pa00ks5q.pdf; World Learning. (2019). *Youth employment project (YEP) – Algeria. Summary final report*. https://www.worldlearning.org/wp-content/uploads/2020/04/YEP-Algeria-Final-Report-World-Learning-MEPI-November-2019_PUBLICSUMMARY.pdf; FHI 360. (2020). *USAID career center: Final report*. https://pdf.usaid.gov/pdf_docs/PA00WQ5H.pdf
- ³⁸U.S. Agency for International Development. (manuscript in preparation). State of the evidence update: Scaling youth workforce development outcomes through youth systems.
- ³⁹U.S. Agency for International Development. (2021). How the private sector measures social inclusion and its return on investment. <https://beamexchange.org/resources/1509/>
- ⁴⁰U.S. Agency for International Development. (manuscript in process). State of the evidence update: Engaging the private sector for a more inclusive youth workforce. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>
- ⁴¹UN Women. (2021). *Empowering women through public procurement & enabling inclusive growth*. <https://www.unwomen.org/en/digital-library/publications/2021/11/empowering-women-through-public-procurement-and-enabling-inclusive-growth>
- ⁴²Doyeun, K. (2017). *Public procurement opens doors for youth-led firms*. United Nations Africa Renewal.

- ⁴³Nganga, T. K. (2017). Kenya: Assessment of access to government public procurement opportunities for women, youth and persons with disabilities.
- ⁴⁴Doyeun, K. (2017). *Public procurement opens doors for youth-led firms*. United Nations Africa Renewal.
- ⁴⁵Gauteng Provincial Legislature (2023). Gauteng Provincial Legislature Annual Performance Report 2022/2023. <https://www.gpl.gov.za/annual-performance-report-2022-2023/>
- ⁴⁶Gender and Energy Compact. (2022, November 24). COP27: We must make a gender-just energy transition part of climate action. <https://genderenergycompact.org/cop27-we-must-make-a-gender-just-energy-transition-part-of-climate-action/>
- ⁴⁷FMO Entrepreneurial Development Bank. (n.d.). Y Initiative: Finance for youth. <https://www.fmo.nl/y-initiative>
- ⁴⁸Innovations for Poverty in Action. (2023). Best bets: Emerging opportunities for impact at scale. <https://poverty-action.org/sites/default/files/2023-11/IPA-Best-Bets-Report-2023.pdf>
- ⁴⁹International Labour Office Dar es Salaam. (n.d.). *Employment creation in municipal service delivery in Eastern Africa: Improving living conditions and providing jobs for the poor: September 2003–December 2005*. https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_policy/@invest/documents/projectdocumentation/wcms_asist_8263.pdf
- ⁵⁰Yirenya-Tawiah, D., Annang, T., Ofori, B. D., Fosu-Mensah B. Y., Tweneboah-Lawson, E., Yeboah, R., Owusu-Afriyie, K., Adudey, B., Annan, T., Datsa, Cl., & Gordon, C. (2020). Urban waste as a resource: The case of the utilisation of organic waste to improve agriculture productivity in Accra, Ghana. In H. Hettiarachchi, S. Caucci, & K. Schwarzel (Eds.). *Organic waste composting through nexus thinking*. Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-36283-6_6
- ⁵¹Nelplast Eco Ghana. (n.d.). Recycling of plastic waste into building materials. <https://www.nelplastgh.com/>
- ⁵²International Labour Office. (2020). Market systems development and the environment.
- ⁵³Ignatowski, C., Blum, R., Campbell, P. S., & Perez-Pineda, R. (2021) Building youth infrastructure: Early lessons from the youth systems collaborative. *Journal for Youth Development*, 16(2–3). Special Issue on International Positive Youth Development. <https://jyd.pitt.edu/ojs/jyd/article/view/21-16-%282-3%29-SIA-03>
- ⁵⁴Education Development Center. (2022). *Scaling youth work readiness skills and transition to work in Senegal's schools: A strategy and cost analysis*. <https://www.edc.org/scaling-youth-work-readiness-skills-and-transition-work-senegals-schools>
- ⁵⁵U.S. Agency for International Development. (manuscript in preparation). State of the evidence update: Scaling youth workforce development outcomes through youth systems. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>
- ⁵⁶FMO Entrepreneurial Development Bank. (n.d.). Y Initiative: Finance for youth. <https://www.fmo.nl/y-initiative>
- ⁵⁷World Economic Forum. (2023, March 20). How to fill the sustainability gap in emerging markets and why it matters.
- ⁵⁸Tansan, B., Lang, N., Meyer, M., Gokbulut, A., Ivers, L., Hutchinson, R., Santamarta, S., Azevedo, D., & Chan, T. (2023, March 14). *The sustainability imperative in emerging markets*. Boston Consulting Group. <https://www.bcg.com/publications/2023/the-importance-of-sustainability-in-business>
- ⁵⁹International Labor Organization. (2014). Inclusion of youth with disabilities: The business case. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_316817.pdf
- ⁶⁰USAID (archived) The Business Case for Gender Equality. <https://2017-2020.usaid.gov/energy/engendering-utilities/business-case>
- ⁶¹Krueger, H. (n.d.) *The business case for disability inclusion in market systems development research brief*. https://thecanopylab.com/wp-content/uploads/2020/05/Business-case-for-disability-inclusion_FINAL-KS-with-links.pdf
- ⁶²U.S. Agency for International Development. (manuscript in process). State of the evidence update: Engaging the private sector for a more inclusive youth workforce. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>
- ⁶³Ibid.
- ⁶⁴U.S. Agency for International Development. (2023). State of the evidence update: Work-based learning in youth workforce development. <https://www.edu-links.org/resources/state-evidence-youth-workforce-development>



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