

# Accelerating 'Green' School-to-Work Transitions



## Contents

Introduction	3
Methodology	5
Why 'green' school-to-work transition pathways matter	7
Achieving net zero	7
Covid-19 and greening economies	9
Conceptualizing 'green' school-to-work transitions	12
School-to-work transitions explained	12
A conceptual framework for 'green' school to work transitions	13
A holistic lifecycle approach to designing policies and programmes	14
'Green' school-to-work transitions: a four-step approach	16
Stage 1: Lay strong 'green' skills foundations	16
Stage 2: Prepare young people for transition to green work	20
Stage 3: Support young people to find green work opportunities	23
Stage 4: Create more 'green livelihood' opportunities for young people	24
Resetting the policy environment for accelerating 'green' school-to-work transitions	27
Policy, skills and financing	27
Funding for education and training	28
Funding for jobs and employment initiatives	28
Solutions	29
Coordination and alignment	30
Gender inclusion and equity	31
Data, evidence, and research on 'what works'	32
Private sector engagement	33
Conclusion: Six action points for policymakers	35
A more holistic approach to 'green' school-to-work transitions	35
Financing	36
Private Sector Engagement	36
Coordination	37
Engagement of young people	37
Endnotes	38



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## Introduction

In 2015, 193 nations agreed to act to limit global warming to 2 degrees Celsius (and preferably 1.5° C) compared with pre-industrial levels, recognizing the potentially catastrophic and irreversible impact that unchecked climate change is likely to have on lives, livelihoods and ecosystems. High energy prices and disrupted energy markets, which have occurred since the start of the war in Ukraine, have further underscored the need to move away from fossil fuels and accelerate the transition to green energy. The twin aspirations of getting to net-zero carbon emissions and living up to the promise of the Paris Climate Accords are likely to shape the lives of this and the next generation of young people.

Getting to net zero, the point where the greenhouse gas emissions taken from the atmosphere equals those which are emitted, is more than a challenge to be overcome; it is also an important opportunity for economic development and the creation of jobs and ethical and decent livelihoods. Green industries are frequently labour-intensive, and it is predicted that the 'greening' of economies will create more jobs than it destroys. The International Labour Organization (ILO) has estimated that the net number of new jobs created by decarbonization and the uptake of circular economic practice will be around 25 million between 2019 and 2030, with 103 million jobs created and 78 million lost.<sup>1</sup>

Young people must be equipped with the skills and resources they need make their livelihoods in the green economy, to become climate and sustainability advocates and changemakers, and to drive adaptation and mitigation in their own communities.

But the skills these new jobs demand must be readily available to the labour market. If young people are to participate in and benefit from these opportunities, urgent action is needed from government, development partners and the private sector. Young people must be equipped with the skills and resources they need make their livelihoods in the green economy, to become climate and sustainability advocates and changemakers, and to drive adaptation and mitigation in their own communities.

This report sets out why and how key stakeholders must act, and act now. It establishes:

- The rationale for accelerating 'green' school-to-work transition pathways
- A new framework for understanding the environmental, educational and employment aspects of these 'green' school-to-work transitions
- A holistic overview of the principal levers available to policymakers who wish to create and accelerate green livelihood opportunities for young people
- What policymakers can do to accelerate 'green' school-to-work transition pathways

It also examines some of the most promising approaches to supporting young people into green livelihoods and explores the key challenges to creating better 'green' school-to-work transition pathways.

Finally, it offers a detailed step-by-step toolkit that describes 'green' school-to-work transitions and a set of six recommendations for policymakers and other actors in the field.

Given that the pace of climate change will largely depend on the pace of technological development and the combined actions of individuals, businesses and governments, these environmental, education and employment policy options are not dependent on any particular climate scenario. We hope this will assist future-focused policymakers who, despite the uncertain future trajectory of climate change, are looking for ways to improve their country's climate preparedness and resilience.



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## Methodology

This report is based on insights from 18 semi-structured interviews with key experts from UN agencies, academia and civil society organizations. A rapid review of more than 50 relevant academic studies and grey literature sources also drew together insights from diverse research areas including economic development, employment and entrepreneurship, education and skills, climate adaptation and mitigation, and public opinion.

The aim was to answer the following questions:

- How do we define 'green' school-to-work transition pathways?
- What impact will the greening of economies have on work opportunities for future generations?
- How can 'green' school-to-work transition pathways benefit children and young people as well as the planet?
- Can we identify some key and compelling approaches to the greening of school-to-work transitions?
- How do we 'create' green school-to-work transition pathways – what will help us achieve this and what will hold us back?
- What do policymakers need to know about this issue?



A selection of policies and programmes identified during the review are highlighted. The focus is on programmes already operating at scale or that appear to have the potential to be scaled up, and on those being used in low-income or fragile settings. The aim was to find a range of approaches that were youth-centred and/or offered unique or innovative features that made them particularly attractive and useful to programmers, practitioners or end-users.

## Defining Key Concepts

These definitions are pragmatic working definitions. There are no universally accepted, standardized definitions for 'green jobs' or 'green skills' – and indeed a United Nations Industrial Development Organization (UNIDO) study has suggested that lack of consensus on definitions has inhibited action by stakeholders.<sup>2</sup>

**A 'green economy'** is defined by United Nations Environment Programme (UNEP) as an economy that delivers improved well-being and social equity while significantly reducing environmental risks and ecological scarcities.<sup>3</sup>

**Green jobs** are "decent jobs that contribute to preserving or restoring the environment".<sup>4</sup> This includes jobs that produce green products and services (including work related to climate change mitigation and adaptation) and jobs that help to reduce the environmental impact of businesses. The ILO argues that a green job must also meet the definition of decent work including fair wages, health and safety protection, recognition of workers' rights, social dialogue and social protection. It is understood that green jobs come in varying shades of green depending on their greater or lesser environmental impact.

**Green skills** are "the knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable and resource-efficient society".<sup>5</sup> Green skills include:

- **Certain occupational and technical skills**, including engineering, science operation management and monitoring, used more intensively in green occupations.<sup>6</sup> While these skills may not be that different to those required in other industries, they "require adaptation to environmental phenomena and technologies".<sup>7</sup>
- **Transferable skills** used in many occupations. These include: "decision-making, teamwork";<sup>8</sup> "leadership, risk management, design, communication, commercial";<sup>9</sup> and creativity and problem-solving.<sup>10</sup>
- **Transformative capacities** or "skills for green transformation" needed to drive the systems change demanded by the 1.5°C target; they include disruptive thinking, political agency and coalition building.<sup>11</sup>

**A child** is someone below the age of 18, as defined in the Convention on the Rights of the Child.

**Youth** are people between the ages of 15 and 24.

**Young people** are those between the ages of 10 and 24.



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## Why 'green' school-to-work transition pathways matter

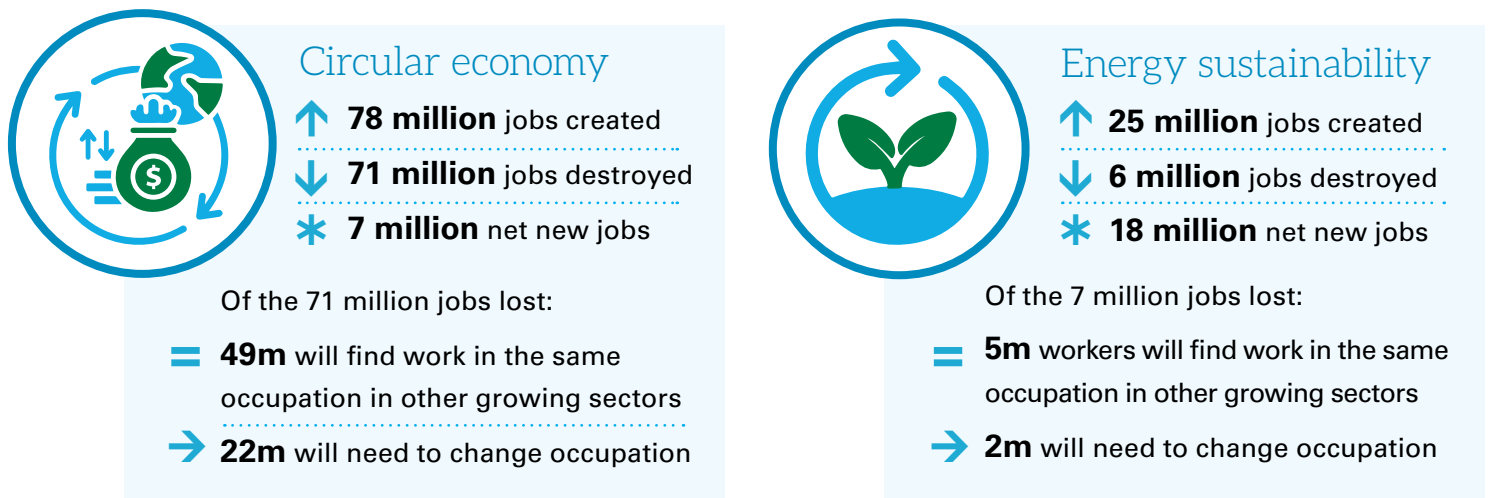
### Achieving net zero

**Getting to net zero will require significant shifts in the composition of the industrial base in many countries.** Given that the major driver of climate change is carbon emissions, achieving net zero means that some carbon-intensive forms of production will have to stop completely, while significant growth in other sectors will be expected in their place. Other industries will substantially reduce their emissions by adopting new green technologies. Employers will be looking both for new skills, and for more workers with certain skills that have so far been in less demand. Some skills that are currently highly sought-after may become redundant.

International Monetary Fund (IMF) projections suggest that a typical emerging economy (those not among the 39 classified by the IMF World Economic Outlook as advanced) aiming to reach net zero by 2050 will need to move 2.5 per cent of its employment from higher-emission to lower-emission work over the next 10 years.<sup>12</sup>

The ILO focuses on two key elements of greening economies (*see Figure 1*) to model the likely impact on jobs: the decarbonization of energy, and the development of a circular economy that re-uses and recycles materials. Both of these scenarios suggest that tens of millions of workers will need to train or retrain so that they can cope with change in their current job or find a new one.

Figure 1: ILO projections of circular economy and energy sustainability scenarios on jobs<sup>13</sup>



Source: International Labour Organization, *Skills for a Greener Future: A global view based on 32 country studies*, ILO, Geneva, 2019.  
Note: Figures are approximate

**The net impact of greening the economy is likely to be the creation of new jobs.**

Countries will need to manage significant displacement in their existing workforce but, overall, ILO projections say that more jobs will be created than lost. Sectors such as construction, manufacturing, transport and sales will gain jobs.<sup>14</sup> Green jobs also have the potential to be a large-scale source of livelihood.<sup>15</sup> Given that lack of jobs is a major challenge in most low- and middle-income countries, greening can be seen as a positive, an opportunity to accelerate economic and social development. It is not only a challenge to be managed.

**To realize these job creation opportunities, policymakers must act now to make sure the skills being demanded are available within their labour markets.**

Policy interventions are therefore required to align training and skills with the needs of all sectors of the economy.<sup>16</sup> This should include support and retraining for those already in the workforce who may lose their current work, and a sharp focus on supporting young people to make transitions from school to 'green' livelihood opportunities..

**The process of greening economies is driving change not only in the type of knowledge and skills needed in the workplace but also in the scale of demand for certain skills.**

The European Centre for the Development of Vocational Training (Cedefop) makes it clear that the 'greening' of existing occupations and industries is underway.<sup>17</sup> Observed changes include:<sup>18</sup>

- *Increased demand occupations* - where green economy activities drive an increase in demand for existing occupational roles, without significant change to the nature of the tasks being undertaken;



The ILO's circular economy scenario projects that it will create a net total of around six million high-level skill jobs and around eight million medium-level skill jobs. The net loss of low-level skill jobs will be around seven million. In the ILO's sustainable energy scenario, the biggest impact is on medium skilled jobs, accounting for 16 million of the 25 million (net) new roles created.

- *Enhanced skills* occupations where a 'greening' of the occupation results in changes to the tasks, skills, and knowledge required. These are likely to require upskilling and re-skilling programmes to provide workers with the additional knowledge and skills required to do the job; and
- *New and emerging* occupations – where new an entirely new occupation is created, for example as a result of the emergence of a new green technology. These are likely to be at high-skill or medium-skill levels, requiring more advanced skills at entry or longer periods of training.<sup>19</sup>

**ILO projections suggest many new green jobs will be at mid-skill level.** This contrasts with other megatrends, notably automation, that polarize the labour market into high-skilled and low-skilled roles. The ILO's circular economy scenario projects that it will create a net total of around six million high-level skill jobs and around eight million medium-level skill jobs. The net loss of low-level skill jobs will be around seven million. In the ILO's sustainable energy scenario, the biggest impact is on medium skilled jobs, accounting for 16 million of the 25 million (net) new roles created.<sup>20</sup> Since much of the predicted job destruction in this scenario would be focused on medium skilled and high-level skilled jobs, there would be significant employment churn among skilled workers in the energy and adjacent sectors, which will also drive a considerable need for training and retraining.

**Many green jobs will be concentrated in key green sectors.** Renewable energy, manufacturing, transportation, construction, agriculture, forestry, water and waste management, and tourism are expected to see high levels of growth in the green economy. Across the 2010s these sectors saw varying levels of change, but the renewable energy, waste and water sectors in particular have developed significantly. Agriculture is the single largest area of potential for green livelihoods, and changes to methods of production could see the creation of 60 million new jobs.<sup>21</sup> New green technologies and more sustainable farming practices have the potential to 'rebuild ecological resources' and reduce pollution and, at the same time, improve productivity and food security, reduce poverty and boost livelihoods.<sup>22</sup> However, only limited change has so far reached this sector.<sup>23</sup>

## Covid-19 and greening economies

Governments took unprecedented action to sustain people's livelihoods during the pandemic when widespread closure of businesses became compulsory to prevent spread of the disease. Once beyond the initial emergency response phase, it was hoped that recovery would be used as an opportunity to build greener, more resilient and more just economies.

Yet the OECD's analysis of nearly 1500 recovery measures that have environmental relevance concludes that this has been a missed opportunity with "relatively few recovery measures focus(ing) on skills training and on innovation in green

Although many young people are aware of the scale and intensity of environmental change and the need for transition to a green economy and green jobs, understanding the reality of what this would look like in day-to-day life is limited in many countries.

technologies".<sup>24</sup> Climate mitigation accounted for 88 per cent of relevant policy measures while, overall, few tackled climate adaptation. Many planned recovery measures accelerated existing plans and few were completely new initiatives.<sup>25</sup> The disparity between countries' access to financial resources has widened during the pandemic. The vast majority of spending during the pandemic on both emergency response and longer-term recovery was in advanced economies, while low- and middle-income countries struggled to find the resources they needed.<sup>26</sup>

The pandemic highlighted the vulnerability of our interconnected world to sudden shocks.<sup>27</sup> The IMF has argued that the pandemic increased awareness of how easily and swiftly our systems can be disrupted and may have stimulated public support for investment in climate adaptation which may make it easier for policymakers to make the case for climate action.<sup>28</sup> In addition, the energy crisis that hit many countries in 2021 and 2022 has added further impetus to the economic and energy security imperatives that demand investment in renewable energy – and the education, skills and employment investments required to develop and deliver them.

## Young people's perspectives on green livelihoods

Although many young people are aware of the scale and intensity of environmental change and the need for transition to a green economy and green jobs, understanding the reality of what this would look like in day-to-day life is limited in many countries.

Focus group discussions by IPSOS with young people in India, Jordan, Kenya, the United Kingdom and the United States found, for example, that some young people did not see 'green jobs' as viable career options because they either had little idea what these jobs would be or had misconceptions about their availability or reliability.<sup>29</sup> In Viet Nam, few young people could recall green jobs having been discussed as career options; others thought such jobs did not offer financial security and involved manual labour.<sup>30</sup>

In addition, the perspectives of young people vary widely across contexts. Any preference for green livelihoods tends to be a second-order consideration after basic needs such as security, food, safety and shelter are met.<sup>31</sup>

A new study by Plan International with 2,229 young people from 53 countries – though not representative of young people globally – does provide a deep dive into how engaged young people perceive green skills and jobs.<sup>32</sup>

- **Young people were not confident they had the skills needed to tackle climate change.** Fewer than 30 per cent of those surveyed felt they had the skills that they thought would be important to address the challenges of climate change. Only one in three felt that their education had “completely prepared” them to address the impacts of climate change.
- **Generally, young people did not view their careers as being a viable channel for their own direct action on climate change.** Only 18 per cent reported studying subjects that would help them get a job tackling climate change; only 15 per cent had researched jobs that addressed climate related challenges; and just 9 per cent said that they had applied for or worked in such a job.
- **Some were aware of green economy opportunities.** While six in 10 were aware that green jobs existed, only four in 10 were aware of such opportunities in their own local area. More than two-thirds of those surveyed across each age group knew at least a little about the green economy.
- **They wanted:** more training opportunities for green skills (70 per cent); better education on climate change (65 per cent); and more green jobs (64 per cent).



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More systematic data on young people’s understanding of climate change generally comes from the UNICEF Changing Childhood Project, a survey of 21,000 young people across 21 countries. While 80 per cent of respondents had heard of climate change, only 56 per cent were able to select its correct definition from a list. Respondents living in low- to lower-middle-income countries were three times less likely than those in higher income economies to say they had heard of climate change or to be able to define it correctly.<sup>33</sup>





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## Conceptualizing 'green' school-to-work transitions

This section discusses how governments, development partners and actors in the private sector are developing 'green' school-to-work transition pathways; and it offers a four-step toolkit for plotting a 'green' school-to-work transition that maximizes the potential of young people coming onto the job market.

### School-to-work transitions explained

**The school-to-work-transition is 'the process of moving from education or training to employment'.<sup>34</sup>**

In theory, standard school-to-work transitions have three stages. The first stage, in childhood and adolescence, offers students the foundational and transferable skills they need to reach their potential and to give them a sound basis for the more advanced skills they may need to learn later. The second focuses on teaching specific skills for work that are in demand in the labour market. Together these first two stages can give young people the means to secure early livelihood opportunities while creating an up-to-date skills pool employers can draw on.

The third stage supports young people through the actual transition to work, making it possible for them to use skills they have developed to earn a living. In many low- and middle-income countries (LMICs), high levels of unemployment and heavy reliance on informal economic activity can inhibit this transition. As a result, most governments who are looking for ways to accelerate transition into green economy opportunities will need to consider how they can boost the number of paid jobs in the green economy and increase demand for 'green' skills.

### **In reality, transitions in LMICs are much less linear than this.**

Most young people in low and middle-income countries do not stay in education beyond the end of secondary school. Some will even begin work before the end of primary school age. In fact, an estimated 160 million children around the world are part of the workforce.<sup>35</sup> Though many young people aspire to jobs in the formal sector, there is simply not enough work of this kind<sup>36</sup> and many end up in the informal sector or in agriculture, usually low-quality jobs with little social protection. To make ends meet, some may take on two or more jobs.<sup>37</sup>

While some young people are later able to find more regular, stable employment, some will remain in precarious employment and others will have to cope with periodic unemployment as economic conditions and their personal circumstances shift.<sup>38</sup>

The fact is that young people entering the workforce today can expect to see significant change in the job opportunities on offer on the labour market in their lifetime, and the chances are they will have to change jobs and retrain more regularly than previous generations. For example, the International Labour Organization has estimated that generative artificial intelligence (AI) could lead to the automation of more than 75 million jobs globally, with a further 427 million jobs having the potential to be changed (or augmented) by generative AI. Another 299 million jobs are likely to be changed in other ways, depending on how the technology and its applications develop. This highlights the need for workforce adaptability and to a growing need for investment in lifelong learning and retraining.<sup>39</sup>






## **A conceptual framework for 'green' school to work transitions**

A 'green' school-to-work transition is illustrated in Figure 2. building on the general three-stage model for understanding school-to-work transitions and adapting it for the demands of the green economy. It is also the basis for the toolkit for acceleration of 'green' school-to-work transitions offered later in this report.

This review of approaches used around the world identified seven 'elements' that can accelerate 'green' school-to-work transitions. These are focused interventions that may boost strategic components of the push to 'green' both the workforce and economy.

Each element is explained in detail in the next section.

**Figure 2: Conceptual framework for 'green' school-to-work transitions**

 <b>SCHOOL-TO-WORK TRANSITION STAGES</b>			 <b>ECONOMIC DEVELOPMENT (ADDITIONAL 'GREEN ECONOMY' STAGE)</b>
<b>T1</b> Lay strong 'green' foundations - give young people the knowledge and skills a green economy needs	<b>T2</b> Prepare young people for transition to green work	<b>T3</b> Support young people to find green work opportunities	<b>T4</b> Create more 'green livelihood' opportunities for young people
T = TRANSITION STAGE			
 <b>INTERVENTIONS TO BOOST THE SUPPLY OF SKILLS</b>		 <b>INTERVENTION TO BOOST YOUNG WORKERS' USE OF THEIR SKILLS</b>	 <b>INTERVENTIONS TO BOOST LABOUR MARKET DEMAND FOR GREEN SKILLS</b>
<b>E1</b> Invest in young people's development of basic skills and adaptable skills	<b>E3</b> Give young people information, advice and guidance on green jobs and green careers	<b>E5</b> Confront the barriers that separate young people from green jobs – lack of information, gender etc.	<b>E6</b> Support sectors, industries and initiatives that will want young people's 'green' skills.
<b>E2</b> Improve climate change education and young peoples' environmental knowledge	<b>E4</b> Offer young people work-relevant education and training		<b>E7</b> Support green youth entrepreneurship
E = THE ELEMENTS KEY TO SUCCESSFUL PROGRESSION BETWEEN TRANSITION STAGES			

**Source:** Developed by the author from the model presented in Alam, Andaleeb and Maria Eugenia de Diego, 'Unpacking school-to-work transitions: Data evidence and synthesis', Scoping Paper No. 2, UNICEF Office of Global Insight and Policy, New York, August 2019.



'Green skills' and 'green jobs' policies often focus on how to anticipate the occupational skills green economy employers will want.

## A holistic lifecycle approach to designing policies and programmes

'Green skills' and 'green jobs' policies often focus on how to anticipate the occupational skills green economy employers will want (Element 4). While this should be *part* of the policy mix, taking this focus as a starting point risks creating an education and training system that is always catching up with new requirements rather than being in step with them. Policymakers should instead consider wider interventions that start earlier, preparing young people for the opportunities - in the green economy and beyond - that working life is likely to offer them.

In interventions designed to improve youth employment outcomes, it is common to bundle together two or more approaches so that support is given across a range of domains; for instance, providing both skills training to boost skills supply and job search assistance to boost individuals' use of their skills.<sup>40</sup> While this 'bundling' can be more successful than stand-alone interventions,<sup>41</sup> it is difficult to unravel the relative impact and effectiveness of each programme component.<sup>42</sup>



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# 'Green' school-to-work transitions: a four-step approach

## Stage 1: Lay strong 'green' skills foundations

- **Element 1: Invest in young people's development of basic skills and adaptable skills**
- **Element 2: Improve climate change education and young peoples' environmental knowledge**

*Acquiring the foundational skills a young person needs to fulfil their potential is the first stage of the school-to-work transition pathway. For successful 'green' school-to-work transitions, much of the literature review suggests a focus on the two areas of Elements 1 and 2.*

### **Element 1**

#### **Invest in young people's development of basic skills and adaptable skills**

*"Developing countries with high levels of illiteracy and/or innumeracy in the population can ... take a substantial step in facilitating the transition to a green economy by tackling this challenge."* - ILO, Skills for Green Jobs (2011)

Literacy, numeracy and other basic skills are likely to be an unavoidable pre-requisite for anyone who wants to work in the green economy.

Most of the imminent 'green' job creation is likely to be in mid-skill level jobs.<sup>43</sup> Yet figures from UNESCO Institute for Statistics and research on what the World Bank describes as learning poverty suggest that just over half of children in low- and middle-income countries are functionally illiterate. By primary school graduation age, they cannot read a simple story.<sup>44</sup>

To change this, the focus should be on basic education initiatives that aim to improve literacy and numeracy among school-aged children, and remedial programmes and second-chance education for young adults.

## Improving foundational learning



A growing evidence base details what works to improve young people's foundational literacy and numeracy skills. Promising approaches include *Teaching at the Right Level*<sup>45</sup>, teaching children in their mother tongue, and engaging parents in children's education.<sup>46</sup> A World Bank accelerator programme supports a pilot cohort of 10 governments to improve foundational learning outcomes through setting targets, developing evidence-backed and realistic plans to reach those targets, and developing capacity to deliver the necessary teaching.<sup>47</sup> The opportunity is taken to combine basic skills provision with some climate change education by, for example, translating climate change information into first languages and putting it into teaching materials appropriate for different ability levels as part of literacy interventions. In Morocco, units in global warming, water pollution, threats facing forests and oceans, and energy conservation have been added to the [Reading for Success–National Program for Reading \(NPR\)](#) which strengthens literacy skills through to sixth grade.

Most of the imminent 'green' job creation is likely to be in mid-skill level jobs. Yet figures from UNESCO Institute for Statistics and research on what the World Bank describes as learning poverty suggest that just over half of children in low- and middle-income countries are functionally illiterate.

The literature review also supports a focus on transferable skills – referred to variously as adaptable skills, portable skills or core skills. These include “decision-making, teamwork”,<sup>48</sup> “leadership, risk management, design, communication, commercial skills”,<sup>49</sup> and creativity and problem-solving.<sup>50</sup> With the greening of economies likely to change the structure of labour markets, transferable skills will support workers as they navigate changes in work practices and adapt to new roles. As the ILO puts it, making sure workers have strong transferable skills will “reduce the adjustment costs of structural change”.<sup>51</sup> Transferable skills will also support businesses as they adapt to meet net zero targets and allow them to make the most of the new business opportunities the green economy will open up.<sup>52</sup>



### What skills will be needed to harness technology for climate adaptation and mitigation?

An important part of tackling climate change will be harnessing new technologies. Analysis by McKinsey, for example, suggests that improved simulation capabilities enabled by deve

lopments in quantum computing could help accelerate the development of new battery technologies, new types of solar cells, and new types of construction material. To be able to effectively pick up and use these new technologies, the workforce will need to have strong transferable skills and adaptability. Knowledge of the fundamental mechanics of climate change will also make it possible to identify potential applications of technology to climate challenges.<sup>53</sup>

### Transferable skills



The UNICEF [Global Framework on Transferable Skills](#) identifies four dimensions of learning from which come 12 transferable skills that enable children and adolescents to become agents of change in their communities, able to contribute to economic growth and more equitable societies. [Plan 12 – Learn to Transform](#), built on this framework, is an initiative led by adolescents and young people in Latin America and the Caribbean which emphasizes active participation, reflection and use of these skills via channels such as podcasts, videos, e-learning and group work. Young people teach each other in both English and Spanish.

### Element 2

#### Improve climate change education and young peoples' environmental knowledge

*"In the end it should cut across all the subject areas, language learning, mathematics. Everything you can see from a sustainability or climate change lens."<sup>54</sup>*  
- Alexander Leicht, UNESCO.

Climate change education is unfortunately often overlooked in national curriculums. The ILO argues that environmental awareness is an important core skill and should be part of education from childhood onwards and into adulthood.<sup>55</sup>

Recent analysis of 46 education systems by UNESCO suggests climate change education is still not a priority, only being mentioned in less than half of the policy and curriculum documents examined.<sup>56</sup> Some degree of environmental education was mentioned in more than nine out of 10 systems but the depth of coverage was relatively low.<sup>57</sup> In some countries such as Italy, where the government has announced that climate education will be compulsory, there is progress on climate change education.<sup>58</sup>

Expert interviewees for this study suggest that knowledge of what climate change is, why it is happening, its key mechanics and **the relationship between humans and the environment ought to be part of primary and secondary education.** Alexander Leicht was chief of UNESCO's Education for Sustainable Development section at the time of the study and wants countries to follow the example of Italy. He also argues for **climate change education not just as a stand-alone topic, but embedded within subjects such as mathematics, natural sciences and the social sciences.**<sup>59</sup>

However, even this is unlikely to be sufficient. **Driving change in the curriculum will demand investment in support for the teachers who deliver it.** This could take the form, for instance, of model resources and lesson plans that can be adapted to localities, and up-to-date – and frequently updated – training for educators on the concepts and issues.

### South Africa: Keep it Cool<sup>60</sup>



In South Africa, education charity VVOB and biodiversity advocates GreenMatter have worked with government and universities to embed climate change education (CCE) into school and classroom practices. Innovative change projects involving students and communities explore how teachers can deliver relevant CCE that is aligned with learners' lived experience. The Keep it Cool initiative aims to build policy dialogue that will promote wider systemic impact by injecting CCE principles into education policy, guidelines and materials. In addition to setting up training pathways and professional learning communities, the project recognizes that teachers need training and resources to deliver effective CCE and has set up the Climate Change and Sustainability Education Digital Library at the University of Cape Town which holds open education resources that anyone can use to integrate climate change education into their work. An external evaluation of the programme found participating learners were more knowledgeable about the effects of climate change, having gained practical experience of how to understand climate change concepts and take care of the environment. Positive unintended results of the project included a greater interest by some learners to pursue careers that deal with climate change, improvement of presentation skills and improved confidence.<sup>61</sup>

Young people's interest in green jobs and careers can only be sparked if they understand the likely opportunities and know what skills they will need to do the work.

**Climate change education can both change personal behaviour and empower young people to be champions and leaders for climate action in their own communities.** What they learn about climate mitigation and adaptation can help transform their communities, workplaces and society as a whole and fuel progress to net zero.

There are several instances where young people themselves have advocated for the integration of environmental education into the curriculum. In India, the UNICEF Youth-led Action against Climate Change Programme, delivered with the Centre for Environment Education, has given 350 youth advocates face-to-face and online training on climate action planning, reporting, advocacy and policy. Members of the group were among those who successfully campaigned to integrate climate action and environment education in lesson plans for first and second grade learners in 65,000 primary schools.<sup>62</sup>

## Stage 2: Prepare young people for transition to green work

- **Element 3: Give young people information, advice and guidance on green jobs and green careers**
- **Element 4: Offer young people work-relevant education and training**

*The second stage of the school-to-work transition is more focused, helping young people acquire and develop the specific skills the labour market demands.*

### Element 3

#### **Give young people information, advice and guidance on green jobs and green careers**

Young people's interest in green jobs and careers can only be sparked if they understand the likely opportunities and know what skills they will need to do the work. To make informed educational and training decisions, young people need to understand the links between possible careers and their early learning opportunities and have access to good information, advice and guidance about matters such as courses, qualifications and likely pay and working conditions. They will get all this through systematic, consistent efforts to:

- give them experience of employers and workplaces through internships, work experience or work shadowing in green businesses and industries;
- help them engage with further education and training providers;
- give them access to training and employment opportunities in their local labour market, including job listings and information events;



- offer them personalized guidance and referrals; and
- offer mentoring from workers already employed in the green economy.

Many young people find it difficult to understand what a green job is. It seems an abstract, unreal notion and this confusion is also a barrier for them. After a workshop in Uganda in 2021, one facilitator observed that young people have lots of questions about what green work actually is, in practice, and what a green job would look like in their own community.<sup>63</sup>

This suggests that better communication of what green career opportunities are – and the likely scale of those opportunities – would help frame green jobs for young people in a way they can more easily understand and relate to. The innovation agency Nesta, for example, has suggested a specific 'label' for green job advertisements to make them more identifiable.<sup>64</sup>

Mechanisms beyond the formal education and training system could build young people's awareness of green career options. For example, some UNEP Youth, Education and Environment projects have raised awareness of environmental issues through partnerships with the video games industry, sporting organizations and youth movements such as the Scout Association. Use of similar channels and partnerships could improve baseline knowledge among young people of future green career opportunities, as could reaching parents and other caregivers who often have great influence on young people's career decisions.

## Green careers support through Yoma



Youth Agency Marketplace (Yoma) is a digital marketplace where young people can actively engage in social impact projects and learning and earning opportunities.<sup>65</sup> Currently being deployed in several countries across Africa and Asia, Yoma aims to put opportunities in front of the widest possible youth audience through several integrated functions such as job-matching, mentoring, technical and transferable skills training, experience-based learning and work-based learning opportunities, all of which can be added to a digital CV. *Yoma* has a 'green' pathway that focuses on climate change and the green economy. Users will be offered opportunities to participate in paid 'impact projects' (including reforestation, river monitoring and clean-ups, wetland protection) and raise capital for green entrepreneurial ventures.<sup>66</sup>

Some green economy jobs will demand vocational or occupational skills that young people can only acquire through further education, training or on-the-job skills development.

#### Element 4

##### Offer young people work-relevant education and training

Some green economy jobs will demand vocational or occupational skills that young people can only acquire through further education, training or on-the-job skills development. Many countries are considering how their training programmes need to be adapted or new programmes created to prepare young people for green economy opportunities.

However, this study's evidence review suggests there may be no need to tailor all training *specifically* to the green economy. More incremental updating of existing offers may be sufficient. For example, the OECD notes that there are apparently few "uniquely green skills" and argues for "incremental enrichment of established vocational education and training (VET) programmes". For example, programmes could be updated to include the latest green technologies rather than creating completely new programmes.

Synthesis by UNEP identifies several occupational skills areas that the green economy will have a higher demand for. These include:<sup>67</sup>

- Science skills; more scientists to investigate and design solutions to environmental challenges
- Engineering and technology skills; to design and maintain renewable energy green technologies such as low emissions vehicles and solar cells
- Architectural and planning skills; to design buildings that meet the challenges of climate change
- Operational and resource management skills; to improve the sustainability of organizations
- Agriculture skills; to develop more sustainable forms of farming and food production
- Monitoring skills; to track and regulate environmental impact

Many previous training programmes in LMICs have not been successful. Some have been misaligned with labour market need and others have prepared young people for a fairly limited number of formal economy jobs.

Design and supply of training must be based on the skills currently demanded by the labour market and the skills likely to be in demand in the future.

Design and supply of training must be based on the skills currently demanded by the labour market and the skills likely to be in demand in the future. Even countries that have mechanisms to predict future skills demand struggle to accurately predict the likely types and numbers of green jobs needed. Green occupations are difficult to capture because they do not fall easily into current standardized occupational categories.<sup>68</sup> This means that **training focus and capacity must be based on insight from employers, current supply and workforce trends, and any misalignments between these factors.**

## India: Green Skills Development Programme<sup>69</sup>



The Green Skills Development Programme was set up by the Ministry of Environment, Forest & Climate Change and the National Skill Development Agency. Young people are offered employed or self-employed work in forestry and environmental management and the scheme was expected to train 500,000 people between 2018 and 2021. Courses delivered in 84 existing specialist centres take between 80 and 560 hours and are open to students who have dropped out of other educational programmes or who have not been able to continue their education.

Current global debate questions how limited public finance can be distributed equitably in education and training. The RISE Programme's Kirsty Newman and the UK FCDO's Sarah Lane Smith, for example, have argued that using limited education finance to help a minority gain advanced technical skills may not be fair or helpful when educational attainment among the rest of the population in many countries is so low.<sup>70</sup> Instead, they call for "radical prioritization of foundational learning". Similarly, the International Commission on Financing Global Education Opportunity and UNICEF's own education strategy both emphasize the principle of 'progressive universalism' – prioritizing funds for lower levels of education, and education for the poorest and most vulnerable, until education coverage is close to universal at lower levels.<sup>71</sup>

### Stage 3: Support young people to find green work opportunities

- **Element 5: Confront the barriers that stand between young people and green jobs**

*Giving young people the fundamentals of education and preparing them for work is not enough, especially where entry points to formal work are scarce or hard to access. Focused, proactive support is an essential part of any strategy to make the most of the skills young people can bring to the job market and the economy.*

#### **Element 5**

##### **Confront the barriers that separate young people from green jobs**

A major challenge in many skills systems is poor use of the skills young people have acquired. This is a waste for both the young person who cannot get a return on their learning, and for the wider economy.

The nature of the obstacles that stand in the way of young people's full use of their skills in the workforce will vary across different countries. Design of an effective policy response demands excellent understanding of all the factors that keep those barriers in place.

Women and girls often face additional gendered barriers in hiring practices that may keep them from green employment even when they have the necessary skills.

**One common barrier is simply lack of information about opportunities.** In many LMICs, a young person's transition to work relies heavily on their personal network and their job search efforts are likely to be through word of mouth rather than formal adverts or applications.<sup>72</sup> Job search assistance, help with building wider skills-focused networks, or more formal employment intermediation programmes are among the tools that can disrupt this.<sup>73</sup>

**Women and girls often face additional gendered barriers** in hiring practices that may keep them from green employment even when they have the necessary skills. This issue and potential solutions are discussed in more detail in the *Resetting the policy environment for 'green' school-to-work transitions* section of this report.

## Stage 4: Create more 'green livelihood' opportunities for young people

- **Element 6: Support sectors, industries and initiatives that will want young people's green skills**
- **Element 7: Support green youth entrepreneurship**

*A green sector with the capacity to use green skills at scale is unlikely to spontaneously create the number of decent, quality jobs young people will need. Strategic and proactive encouragement is needed to support the swift growth of green economies and demand for their products and services.*

### Element 6

#### **Support sectors, industries and initiatives that will want young people's green skills**

In countries where quality jobs in the formal sector are scarce, growing green economy employment can be a win-win opportunity to boost economic development and simultaneously build resilience to future climate shocks.

It is important to:

- understand at the outset the local barriers to creating new green jobs for youth; and
- design a bundle of interventions that systematically address the underlying constraints.

Demand for green jobs can be stimulated by, for instance, **supporting the growth of green economy businesses or start-ups through direct investment or boosting access to credit.**<sup>74</sup> Many countries take a sectoral approach, focusing on sectors such as agriculture, energy, construction, tourism and environmental sectors.<sup>75</sup>



Demand for green jobs can be stimulated by, for instance, supporting the growth of green economy businesses or start-ups through direct investment or boosting access to credit.

Another approach is to **support businesses to 'green' their existing methods of production** through policy, regulation or financial incentives, and remove subsidies for 'non-green' practices.

Incentivizing the hire of young people would **build youth focus into hiring practices**. This could be done through green investment in areas where youth unemployment is high,<sup>76</sup> or by making funding conditional on a quota of jobs created being reserved for young people.

Time-limited hiring subsidies could **compensate employers for the higher costs of supporting young people through the early stages of employment** – though this type of scheme needs to be carefully designed to make sure it feeds into sustainable, longer-term employment, and targets those further away from work rather than subsidizing employers to hire young people who would have easily found the work they want.

Governments can also **create demand directly through so-called 'GreenWorks' programmes**.<sup>77</sup> These public work programmes can directly employ young people and vulnerable groups in the construction of 'green infrastructure' to boost a country's climate resilience. Often labour-intensive, such programmes can employ large numbers of people. They may also develop the skills and experience that will help them find other work in the future. Again, careful design is needed to make sure this type of programme has longer-term added value; there is currently little robust evidence about the lasting value of infrastructure constructed in this way or about the skills workers develop.<sup>78</sup>

## Element 7

### Support green youth entrepreneurship

In many low and middle-income countries, large numbers of people rely on self-employment and entrepreneurship rather than the formal sector for their livelihood. Efforts to grow the green economy through supporting young people to set up green businesses have been tried in a number of such countries.

However, an enterprise that fails may make a young person's livelihood even more precarious than before; and many informal sector entrepreneurs who do succeed are often taking home relatively little pay.<sup>79</sup> Simply providing skills training alone for budding green entrepreneurs is unlikely to be sufficient.

**The most effective initiatives are a mix of training, incubation and financial support**, though this design also tends to have high costs.<sup>80</sup> Significant challenges face young people who want to build a sustainable livelihood in this way, and some of those challenges impact them more acutely because they are young.

Governments can also create demand directly through so-called 'GreenWorks' programmes.

### Barriers include:

#### **Access to credit, particularly for young people, particularly in low-and-middle-income countries, and particularly for businesses focused on untested green markets.**

Youth Business International, reflecting on learnings from their Social and Green Impact Accelerator, conclude that “social and green enterprises tend to be more innovative, risky or less profitable, which can make it more difficult to secure funding”.<sup>81</sup> Young green entrepreneurs may therefore face the double disadvantage of being both young with little financial history and few assets, and seeking credit in a sector where financial institutions cannot accurately assess the risk of making a lending decision.<sup>82</sup>

#### **Under-developed markets for green goods and services**

Stimulating demand for green goods and services is likely to be as important as developing the green sector.<sup>83</sup> The ILO suggests green markets may need some degree of subsidy to develop and sustain them.<sup>84</sup> At the very least, existing subsidies for non-green products and services should not disadvantage new green ones.

#### **Restrictive business environments**

Establishing and sustaining a successful business is more likely in a positive business environment. Economic uncertainty, corruption and legislative and regulatory limits can undermine entrepreneurial efforts. The Commonwealth recommends that governments review the impact their policy, laws and regulation have on innovation, focusing on how they affect “young women and men and the green and blue economies”.<sup>85</sup>

### Green innovation programmes for young people



Several initiatives harness young people’s own ideas about how to accelerate green skills and ‘green’ school-to-work transitions through green-focused innovation. Across 2021/22, UNICEF and UNDP ran a Green Shark Tank competition. Ashoka and HSBC partnered a *Green Skills Innovation Challenge*. Both programmes have provided funding, mentoring and technical assistance to support the development and scaling of ideas young people put forward.<sup>86</sup> In Kenya, *BeGreen*, a partnership between Generation Unlimited, IKEA Foundation and Tony Elumelu Foundation, has provided youth with seed capital, peer-to-peer mentoring, business management training, access to networks and virtual support.<sup>87</sup>



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## Resetting the policy environment for accelerating 'green' school-to-work transitions

This section examines what stands in the way of efforts to accelerate 'green' school-to-work transitions.

### Policy, skills and financing

*"Policymakers often don't see skills as part of the picture."<sup>88</sup>*

Olga Strietska-Ilina, ILO

Analysis in 2019 of the Nationally Determined Contributions (NDCs) – plans setting out how member states are attempting reduce their carbon emissions and build climate change resilience – suggest global and national policymakers are not sufficiently aware of the role education, skills and employment interventions can play in developing a workforce able to support implementation of the Paris Agreement.

The ILO analysis points out that while two thirds of the 169 NDCs it considered included a reference to climate change education, in reality less than half included training and skills development, while 22 per cent included no reference to human capital measures at all. (It should be noted, however, that since this analysis, countries have submitted renewed versions of their NDCs.<sup>89</sup>)

Analysis by UNESCO's UNEVOC Centre for Technical and Vocational Education and Training concludes that "very few countries have paid specific attention to the technical and vocational skills development required for the climate change transition set out in their national adaptation plans".<sup>90</sup> Although efforts to raise awareness of education investments as a precondition of successful climate adaptation have recently been renewed through policy initiatives such as the joint meeting of Education and Environment Ministers at COP26 in Glasgow<sup>91</sup>, more concerted action is needed.

## Funding for education and training

Governments, development partners and other funders also appear to be under-investing in education and employment interventions that might be a useful mechanism for supporting climate mitigation and adaptation.

Funding for adaptation efforts has been focused on physical infrastructure rather than human capital<sup>92</sup> and almost no climate finance goes to education systems.<sup>93</sup> Yet the Education Commission and others argue that rebalanced investment, reallocating physical infrastructure funding to education interventions, is the way to build adaptive capacity and avoid locking countries into specific technological paths for climate adaptation and mitigation.<sup>94</sup>

Lack of climate finance for education interventions compounds other gaps. UNESCO estimates an education financing gap of US\$97 billion per year across the 79 low- and lower-middle-income countries. And while some COVID-19-related fiscal stimulus has gone into accelerating green programmes, OECD analysis of nearly 1500 recovery measures with environmental relevance concludes that there has been a "missed opportunity" in green job creation and that "relatively few recovery measures focus on skills training".

Governments, development partners and other funders also appear to be under-investing in education and employment interventions that might be a useful mechanism for supporting climate mitigation and adaptation.

## Funding for jobs and employment initiatives

A recent INCLUDE Knowledge Platform evidence synthesis found that "funding is limited and only a few green economy projects are adequately financed", while a rapid review for the UK FCDO concludes that the green jobs sector was constrained by "inadequate investment" and had only received "limited financial assistance from donors".<sup>95</sup>

This hinders the ambition, design and implementation of initiatives designed to accelerate 'green' school-to-work transitions. Inevitably it means that limited investment is targeted at narrower sectoral approaches or small localized projects rather than systematic interventions that tackle underlying structural issues.<sup>96</sup> Sustainability becomes problematic because donor funding often does not include sufficient resource for planning and to build buy-in, leading in turn to piecemeal implementation. Some projects have run over short time frames insufficient to drive lasting change.<sup>97</sup>





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## Solutions

The impacts of human capital investments are less easy to measure than investment in physical infrastructure and are sometimes less clearly communicated. Their value takes longer to become apparent; and education programmes are often long-term investments.

Several experts interviewed for this study argued that more climate finance must be unlocked for education and skills.

- This calls for a framework that can better measure the impact of investment in green education, skills and climate action-focused employment interventions.
- Governments particularly focused on carbon emission accounting need good data to appraise the potential of human capital investment alongside more traditional investments in green infrastructure.
- Having better agreed measures of impact would also likely strengthen the case for investment for other funders.
- For both climate justice and pragmatic reasons, international investment in green skills and jobs in countries most vulnerable to climate change should be a high priority.

Solutions include better coordination within governments; dialogue and collaboration across departments; and coherence between environmental and education policies.

## Coordination and alignment

*"Comprehensive and coordinated approaches to skills for green jobs are still lacking in most countries... this is leading to an overall picture of training in skills for greener jobs that is fragmented and led by individual regions, sectors and projects."<sup>98</sup>*

**Inconsistencies between education/employment interventions and environmental programmes lead to a mismatch between skills demand and supply, and so curb the implementation of green policies.**

In Nigeria, for example, plans were developed to build a US\$5 billion solar power plant, creating 30,000 jobs, but without planning a vocational training programme that would train the local population to do those jobs.<sup>99</sup> Similarly, in Kenya, migrant workers have had to be brought in to help develop the country's wind energy sector because there are not enough suitably skilled local workers.<sup>100</sup>

Solutions include better coordination within governments; dialogue and collaboration across departments; and coherence between environmental and education policies. At a minimum, this should also include ensuring that officials from Ministries of Labour and Education or their equivalents are involved in governance and consultation for major climate adaptation and mitigation efforts.

### The Philippines: A whole-of-government approach to green jobs



While governments have only limited capacity to drive reforms, this approach demonstrates the traction that can be achieved if green skills efforts are linked into the country's wider economic strategy with buy-in from the political leadership.<sup>101</sup> The Philippines government consulted on and passed a Green Jobs Act in 2016. The Department of Labor and Employment is now charged with developing and implementing a National Green Jobs Human Resource Development Plan.<sup>102</sup> Implementation has been led by the Technical Education and Skills Development Authority which has established a Green Skills Hub, developed a database of green careers, professions and skills, and is integrating green elements into the national technical education qualifications.<sup>103</sup> Strong political backing allowed a 'whole of government' approach to these reforms, ensuring alignment with other government policies and priorities. The government was also able to draw upon technical and financial support from development partners.<sup>104</sup>

## Senegal: National strategy for the promotion of green jobs



In Senegal, the government has developed a National Strategy for the Promotion of Green Jobs, part of its national development strategy. A Support Programme for the Creation of Green Jobs Opportunities has been established in partnership with UNDP to create 5,000 new green jobs. The approach is seen as a potential model for other countries, though findings so far suggest that more financial support, more engagement with the private sector, and a clearer vision is required to deepen the programme's impact.<sup>105</sup>

## Gender inclusion and equity

**Women and girls seeking opportunities in the green economy face additional challenges.** In Sub-Saharan Africa, for example, young women tend to have lower levels of education, less access to capital and may also have weaker networks. Young women looking for sustainable livelihoods also have to navigate employer bias and concerns around personal safety and sexual harassment. They are likely to be steered into gendered and often lower-paying occupations and are often expected to take on substantial domestic and childcare responsibilities as well.<sup>106</sup>

**An employment gender gap has already appeared in key green economy sectors, and it is likely to grow as the green economy grows.** While women are well represented in green areas likely to see growth such as agriculture, forestry and tourism, they are under-represented in areas such as wind energy, transport and construction which are likely to offer better pay and higher quality jobs.<sup>107</sup> The skilled, higher paid jobs most likely to see increased demand are in areas such as engineering that are already male-dominated.<sup>108</sup> (Globally, women have a 12 per cent share of engineering jobs.<sup>109</sup>) The ILO warns of the risk that the gender segregation already prevalent in existing occupations will be recreated in the green economy unless young women are included in training in relevant skills areas.<sup>110</sup>

**Occupational segregation is driven in part by the choices young women make about which field to enter, and what education and training options to pursue.** These choices are driven by gendered societal expectations about what is 'suitable' for women and calculations about the likelihood of getting a job even if they have the required training. New green economy occupations that do not yet have strong gender role preconceptions may be an opportunity to disrupt patterns of occupational gender segregation.<sup>111</sup> The literature suggests potential policy solutions that include:

- careers advice, work experience and mentoring to expose women to green careers and female role models at an early stage;<sup>112</sup>

While women are well represented in green areas likely to see growth such as agriculture, forestry and tourism, they are under-represented in areas such as wind energy, transport and construction which are likely to offer better pay and higher quality jobs.

- improving professional networks for women in green sectors;<sup>113</sup>
- life skills training to support women to navigate career pathways where they are a minority;<sup>114</sup> and
- addressing the relative underperformance of girls in the basic education system.<sup>115</sup>

**Skills interventions alone are unlikely to unlock higher paying green economy opportunities for girls and women.** Discriminatory business practices and social norms, gender segregation, differential pay, discrimination in hiring decisions, lack of childcare, lack of flexible working hours or lack of parental leave may also exclude women from green employment opportunities.<sup>116</sup> UN Women, the African Development Bank and others point out that only concerted policy action and direct engagement with green economy employers can tackle these challenges.<sup>117</sup>

## Egypt: Support for renewable energy and promoting gender equality



In 2019, the European Bank for Reconstruction and Development and the Green Climate Fund co-funded a technical cooperation programme. Aiming to identify and overcome “challenges that prevent women’s participation”, it was designed to develop the renewable energy sector with a specific gender lens. It also looked at how renewable energy projects could be used as opportunities for the development and growth of successful women-led small businesses.<sup>118</sup>

## Data, evidence, and research on ‘what works’

A growing number of **green skills programmes are being piloted and implemented in low-and-middle-income countries – but relatively few have been rigorously evaluated.**<sup>119</sup>

Several comparative studies show that the available data on the effectiveness of green employment programmes is limited<sup>120</sup> and this hinders policymakers who want to make evidence-based decisions about future policy direction and investment. It also makes funding to scale up green education, skills and employment interventions more difficult to attract. A conscious effort to build the evidence base on ‘green’ school-to-work transitions will tell policymakers, programme implementers and funders how they can best help catalyse routes to net zero that are job-rich.<sup>121</sup>



Systematic research on young people's perspectives on green livelihoods is also lacking. Development of future policies and programmes should involve them and be informed by systematic opinion research and consultation that reveals how they perceive opportunities and challenges in the green economy, and the challenges they currently face in the labour market.

## Private sector engagement

**Private sector actors can have a major impact on how many green opportunities there are for young people.** In an average developing country economy, the private sector accounts for 60 per cent of GDP and 90 per cent of job generation.<sup>122</sup> By leveraging private sector efforts effectively, governments can complement their own investment in green skills and green jobs initiatives. There are strong business reasons why the private sector would want to support the development of green skills and jobs. Beyond the obvious opportunity to enhance reputation and brand value, companies also want to mitigate climate risks to their operations and markets, develop new products and services, increase competitiveness, reduce costs, and comply with regulation.<sup>123</sup>

**Yet coordination between public and private actors is often weak<sup>124</sup>, leading to siloed decision-making by public and private anchors.** Analysis by UNIDO suggests that to improve policy coherence, governments should systematically consult with the private sector and other stakeholders on green skills development to align purpose and programming. Clearer government guidance can help businesses inform and shape their decision-making on the green economy; financial support – training subsidies, loans – can unlock private sector investment; timely, detailed information about national greening strategies makes it possible for businesses to align their operations with those targets.<sup>125</sup> Wider government policies – industrial policy, design of the tax system, key sector regulations – also shape private sector decisions and can be used to prompt private sector demand for green skills and jobs.

**However, private sector engagement comes with risk and limitations that policymakers must consider and, where possible, mitigate.** The bulk of the private sector in low and middle-income countries is made up of micro, small and medium-sized enterprises (MSMEs). They often have less bandwidth, resource and capacity to take part in consultation processes and access financial or other initiatives. This means that private sector engagement may privilege larger companies. One solution is to develop relationships with aggregators of MSME organizations such as industrial associations, sector skills councils, chambers of commerce or financial intermediary organizations.

In addition, investment by the private sector is uneven; some countries and sectors find it easier to raise investment than others and this risks distorting overall patterns of investment in green skills and jobs.<sup>126</sup>

Finally, where governments offer financial support and incentives, they need to both avoid paying for something that the private sector would have funded from its own resource, and make sure some resource – capacity, human capital, opportunity – increases.

## Ghana: Boosting green employment and enterprise opportunities (GrEEn)<sup>127</sup>



The European Union and Kingdom of the Netherlands have invested EUR20.6 million in *GrEEn*, a programme designed to create green jobs in the Ashanti and western regions of Ghana. Delivered in partnership with local and national government, it aims to support MSME growth and create at least 1500 new green jobs for youth, women and migrants. It offers support to 3500 youth, women and returning migrants to develop self-employment opportunities through skills improvement and access to finance. An annual *GrEEn Innovation Challenge* offers 4:1 investment to scale up selected innovative green ideas and businesses. Short-term cash-for-work job opportunities to support the building of new climate-resilient infrastructure will also be offered through the programme. This is a private sector development approach to development that works with start-ups, SMEs, large companies, private sector associations, networks, Chambers of Commerce, cooperatives, financial service providers and providers of business advisory services.<sup>128</sup>



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## Conclusion: Six action points for policymakers

Today's young people will have to cope with the impact of climate change their whole lives. Our response to climate change now will determine how well-equipped they are to meet those challenges.

This section sets out five ways in which governments, other development partners and agencies and the private sector can refocus on and accelerate 'green' school-to-work transitions for young people.

### A more holistic approach to 'green' school-to-work transitions

#### **Recommendation 1**

**Look beyond a narrow focus on the occupational skills needed by the green economy and develop a holistic, lifecycle approach to supporting 'green' school-to-work transitions.**

'Green skills' and 'green jobs' policy approaches often focus on how to predict and provide the occupational skills being demanded by green economy companies. This should be part of the policy mix, but it is not sufficient. A wider view will include interventions that start earlier in the life course and prepare young people to take advantage of opportunities in the green economy and beyond during their working lives.

Top priority should be given to making sure young people have the basic and transferable skills they will need to navigate labour market shifts caused by the green transition; to embedding climate change and environmental education into the curriculum; and training teachers to deliver good quality climate change education.



## Financing

### Recommendation 2

**Redirect a bigger share of development and climate change funds to education, training and employment interventions.**

Governments, development partners and other funders that support climate mitigation and adaptation work appear to be under-investing in education and employment interventions. Very little climate finance goes into education systems and green jobs, and employment programmes struggle to raise scale-up financing.

Adaptation and mitigation policies and programmes cannot be delivered without an appropriately skilled workforce, and this means funders focused on climate change (including multilateral funds, governmental overseas development agencies, philanthropic foundations, and individual donors) should invest in education and skills.

There is a strong case to prioritize new international investment for green skills and jobs in countries that are most vulnerable to the impacts of climate change.

### Recommendation 3

**Develop a framework for measuring the impact that education and employment interventions have on climate mitigation and adaptation.**

A better measurement framework for the impact of investment in green education, skills and employment interventions could unlock more funding for this area of climate change and mitigation intervention. Governments and funders that are particularly focused on carbon emission accounting need good data to determine whether the outcome of investments in human capital compare well with traditional investments in green infrastructure projects.

## Private Sector Engagement

### Recommendation 4

**Urge employers and other private sector actors in green economy sectors to invest in their own talent pipelines.**

Accelerating 'green' school-to-work transitions cannot be left entirely to government and third sector actors. Given the undeniable business rationale for building green economy skills and capacity, the private sector must also invest time and resources in education, training and skills interventions to develop the talent pipelines on which their future prosperity and sustainability will depend.

Working with government, the private sector can improve the relevance of employment and skills interventions. At every level, the sector has the influence to drive up decent work standards in its own organizations and supply chains. Actions could include:



- training opportunities for their own workforces that might include remedial or second chance education, or opportunities for employees to learn novel and practical skills through work-based learning;
- helping to finance and deliver occupational skills training; and
- encouraging their employees to make the most of career education, mentoring and similar programmes.

The private sector's input on government-led education and skills initiatives will be vital to make sure interventions are relevant and will create the pool of skills employers are likely to need. The sector is also best placed to increase the proportion of green jobs that are also decent jobs free of discrimination, both in their own workforces and in their supply chains.

## Coordination

### **Recommendation 5**

**Improve links between education, labour market demand and environmental policies and programming.**

Co-ordinating these three key policy areas and integrating them into climate adaptation and mitigation initiatives will avoid inconsistencies between education/employment interventions and environmental programmes that create a mismatch between skills demand and supply and slow down green policy implementation. Dialogue and collaboration across government departments is key to coherence.

## Engagement of young people

### **Recommendation 6**

**Integrate meaningful youth engagement into green transition strategies.**

Young people make up a significant portion of the global population, and they will inherit the world that current decisionmakers are shaping. As such, their engagement in 'green' school-to-work transitions is crucial. Given the right conditions that foster youth engagement, young people – including the most marginalized – are capable of bringing innovative ideas and creative solutions to the table. More than that, when recognized and valued as equal partners, they can also feel empowered to take ownership of solutions, aiding the successful implementation of green initiatives. By incorporating youth engagement into their strategies, governments, development partners, agencies, and the private sector can ensure that young people are not only recipients of the green transition, but also active contributors to it.

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