

# Linking Labor Mobility and Technical and Vocational Education and Training (TVET)

HELEN DEMPSTER · MARCEL RICOU

## Abstract

This paper explores how linking international labor mobility and technical and vocational education and training (TVET) can enhance the effectiveness, cost-effectiveness, and developmental impact of donor and government investments in skills development. In the context of shrinking global aid budgets and persistent skills shortages in low-, middle-, and high-income countries, we argue that linking labor mobility and TVET (particularly in skills relevant to the green transition) can deliver a “triple win”: improving employment outcomes for trainees; filling critical labor gaps in countries of destination; and strengthening TVET institutions in countries of origin. Drawing on evidence from existing initiatives, this paper identifies two broad, non-mutually exclusive, approaches for linking labor mobility and TVET: (1) aligning training content and quality with employer needs; and (2) recognizing qualifications or certifications, through mechanisms such as mutual recognition processes and international accreditation. Complementary measures—including language training, cultural orientation, and sustainable financing models—are also examined. This paper discusses how this linkage can increase TVET placement rates, improve institutional quality, attract investment, and expand opportunities for disadvantaged groups, including refugees. It also outlines how best to leverage these impacts by working with existing high-performing TVET providers to build successful, sustainable talent pipelines as a pathway to scale.

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**Helen Dempster**

*Center for Global Development*

**Marcel Ricou**

*IREX*

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### **CENTER FOR GLOBAL DEVELOPMENT**

2055 L Street, NW Fifth Floor  
Washington, DC 20036

1 Abbey Gardens  
Great College Street  
London  
SW1P 3SE

[www.cgdev.org](http://www.cgdev.org)

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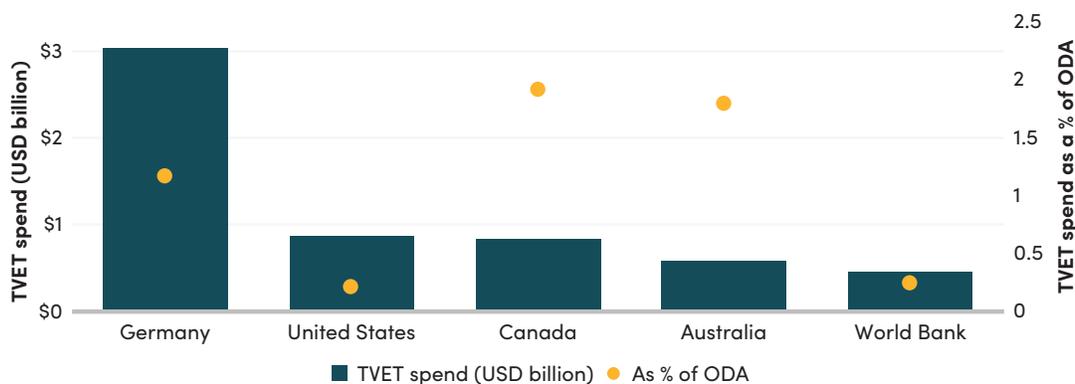
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## Introduction

Throughout 2025, global foreign aid was drastically cut. Major donors such as the United Kingdom (UK), France, and Germany have all substantially reduced their official development assistance (ODA) budgets, and the United States (US) has dismantled much of its aid architecture. This is coming alongside renewed calls for distributing “aid in the national interest”; that is, ensuring development spending is win-win (Hill and Nixon, 2025). There are some development priorities—providing humanitarian aid, reducing hunger, improving water and sanitation—where this approach would compromise aid effectiveness. But there are others where these principles can absolutely go hand-in-hand (Barder, 2018). This paper discusses one such priority: linking investments in technical and vocational education and training (TVET, see Box 1) with international labor mobility opportunities.

TVET is often touted as important for low- and middle-income countries experiencing high unemployment, low job creation, and large skill gaps. Yet there has been little public investment in it (Yavuz et al., 2025). As a share of overall ODA, TVET remains small: approximately 1.9 percent for Canada, 1.8 percent for Australia, 1.2 percent for Germany, and around a quarter of one per cent for both the US and the World Bank (Figure 1; Iqbal and Dempster, 2026). This lack of spending is in line with domestic priorities; on average, low- and middle-income countries only spend 0.2 percent of their gross domestic product (GDP) on TVET (World Bank, UNESCO, and ILO, 2023).

**FIGURE 1. Investment in TVET by the top five donors, 2013–2022**



Source: OECD Creditor Reporting System (CRS) database, cited in Iqbal and Dempster (2026).

## BOX 1. Definitions

Technical and vocational education and training (TVET) is complex and variegated, making agreeing a single definition difficult (Ricou and Moore, 2020; Iqbal and Dempster, 2026). UNESCO-ILO recommendations define it as “the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life” (UNESCO and ILO, 2003). Programs could be delivered within the formal education system, leading to degrees and other certificates; outside the formal education system; and informally, often on the job or “learning-by-doing” (World Bank, UNESCO, and ILO, 2023). They could be delivered by public and/or private entities, and the length of programs can range from several weeks up to three years.

Similarly, there is no one single definition of “green skills”. The ILO defines green jobs as jobs that “reduce the consumption of energy and raw materials, limit greenhouse gas emissions, minimise waste and pollution, protect and restore ecosystems and enable enterprises and communities to adapt to climate change” (ILO, 2018). It fits within the ILO’s definition of a “just transition”: “greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no-one behind.”<sup>1</sup> Programs which develop “green skills”, therefore, are those which equip trainees with the skills they will need to undertake such “green jobs”. Because of these broad definitions, we have focused in this report on the technologies and sectors identified as key to national decarbonization. Programs which build specific skills such as solar photovoltaic (PV) installation are included, as are those which build more general skills in sustainable construction, electrical engineering, manufacturing, agriculture, and transport.<sup>2</sup>

This may stem from the fact that TVET has largely fallen short of expectations.<sup>3</sup> Donors use a range of different tools to measure the success of TVET, but outcome measures usually focus on employment rates and earnings (Box 2; Comyn, 2023; UNESCO and NCVER, 2020). Meta-analyses have found that less than a third of TVET interventions have positive, significant impacts on these measures, with some interventions yielding no returns at all (World Bank, 2018; World Bank, UNESCO, and ILO, 2023). In their review of the Millennium Challenge Corporation’s \$148 million<sup>4</sup> investments in TVET, Ricou and Moore (2020) found that while many output targets were reached, projects failed to achieve their intended labor market outcomes. Given high costs, this means that many TVET programs would fail cost-benefit analyses.<sup>5</sup>

1 See <https://climatepromise.undp.org/news-and-stories/what-just-transition-and-why-it-important>; and [https://international-partnerships.ec.europa.eu/policies/sustainable-growth-and-jobs/employment-and-decent-work\\_en/](https://international-partnerships.ec.europa.eu/policies/sustainable-growth-and-jobs/employment-and-decent-work_en/).

2 See <https://www.unido.org/stories/what-are-green-skills>.

3 Another driver of this disparity is that many see basic education as a pure public good and TVET as a pure private good. In reality, the distinction is more nuanced; both secondary education and TVET are a mix of public and private good.

4 In this report, \$ refers to USD, unless otherwise stated.

5 Note that the International Initiative for Impact Evaluation (3ie) has recently been commissioned by the UK’s Foreign, Commonwealth, and Development Office (FCDO) to undertake an evidence mapping of learning to earning interventions in low- and middle-income countries (Yavuz et al., 2025).

## BOX 2. Understanding the impact of TVET investments

Donors and TVET providers use a range of different tools to measure their impact, such as cost-benefit analyses (CBA), return-on-investment (ROI) calculators, and value-for-money (VFM) assessments (Comyn, 2023).<sup>6</sup> The lack of a standardized definition and the huge variability in investments makes it difficult to develop a consistent framework. UNESCO and NCVER (2020) note that programs should divide the benefits of the program by the costs, and then multiply by 100 to get the rate of return. Benefits can accrue to the individual (e.g., employment rate, improved employment status, and increased income) and the economy overall (e.g., increased labor force participation and decreased rate of unemployment). Cedefop (2011) calculates the returns on wages and employment from one year of initial TVET to be 10 percent for men and 7 percent for women, and Ricou and Moore (2020) find a 5 percent increase in employment and a 7 percent increase in income. Yet these are small numbers, and data is lacking. They also argue that a key outcome, but one that is difficult to measure, is the increased productivity of firms that receive higher-skilled labor. Indeed, Comyn (2023) notes that there would be more investment in TVET and skills development if there was more robust data on social and economic impact.<sup>7</sup>

One of the best illustrations of the rate of return comes from the Australia Pacific Training Coalition (APTC). Their CBA includes *private benefits* (the gain in earnings from investing in two years of APTC training) and *private costs* (tuition fees and direct costs, as well as the opportunity cost in lost income, discounted to the present). Yet it also includes *social benefits* (monetized value of the gains to co-workers, employers, and wider society) and *social costs* (costs of delivering the training) (DFAT, 2009). They use graduate tracer surveys to measure private benefits, comparing incomes to a comparison group drawn from the pool of qualified but unsuccessful applicants for APTC scholarships. They use employer tracer surveys to measure social benefits, asking employers to (among other things) estimate the productivity difference between APTC graduates and similar non-APTC workers. A 2014 independent review noted that “a major factor in whether or not APTC

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6 That being said, Allais and Marock (2023) have found that not all TVET investments have a robust theory of change, with some operating overlapping theories of change.

7 Interestingly, a recent paper looks into the carbon emissions reduction contribution of the marginal green worker (Huckstep and Harnoss, 2026). The authors look at the contributions of two types of workers (electricians installing residential solar panels and heating technicians installing heat pumps) in six countries during the period 2024–2032. They find that one worker has a monetised social value of hundreds of thousands of dollars, equivalent to planting thousands of trees. It demonstrates the importance of using TVET and skills development to fill gaps in green workforces, even at small scale.

can be considered good value for money is the migration rate of APTC graduates” as this significantly increased private benefits (Johanson et al., 2014),<sup>8</sup> yet by 2016, only 2.5 percent of graduates had moved. Phase three of APTC therefore made a concerted effort to ensure graduates received Australian-recognized qualifications, and were supported with accessing employment overseas through the new Pacific Labour Scheme (DFAT, 2017).

Reasons for this lack of impact vary. The World Bank, UNESCO, and ILO (2023) point to three: (1) challenged learners, in that trainees do not have the foundational skills to make the most of TVET and have little understanding of how to leverage that training in the labor market; (2) unsupported teachers, who have little work experience or formal training, and are largely underpaid and under-resourced; and (3) weak incentives for providers and job placement. But there is a more fundamental issue at play. TVET can help address *supply-side* issues (such as skill shortages and skill mismatches) but it can't address *demand-side* issues (such as a lack of jobs). Governments often reach for TVET as a panacea to youth unemployment, but what is often actually needed are policies to deregulate the labor market while promoting private sector growth and job creation (Ricou and Moore, 2020).<sup>9</sup>

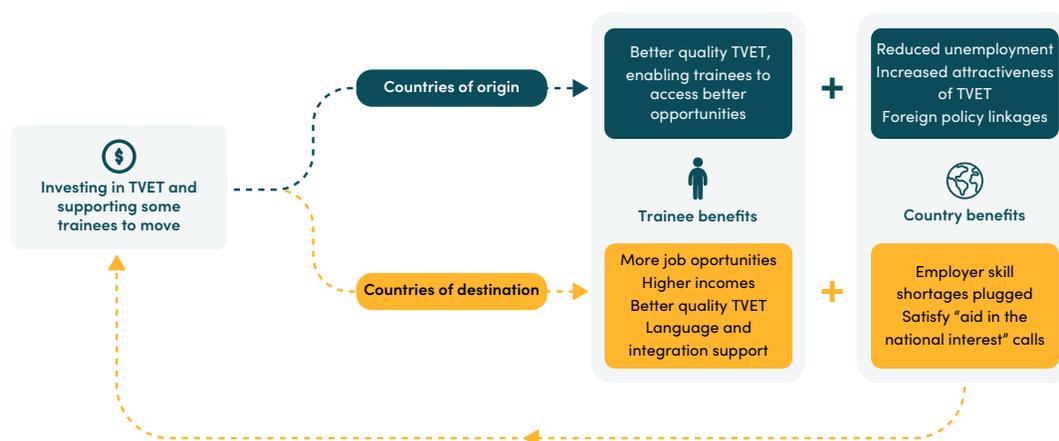
In this paper, we argue that TVET providers could have a greater impact on employment rates and earnings if they placed some of their trainees abroad. In many ways, this is the reverse of the current model: instead of providing training as a part of projects which facilitate labor mobility; provide mobility opportunities as a part of training-focused projects. We argue that doing so could improve the impact of TVET in five main ways: it would increase the quality of TVET programs; increase placement rates and income gains; increase investment in TVET; improve TVET revenues; and increase the attractiveness of TVET, especially for disadvantaged groups (Figure 2).<sup>10</sup>

8 As Johanson et al. (2014) note, the estimated rate of return (ERR) “is sensitive to the proportion of APTC graduates who obtain work overseas ... For example, if 25 percent of graduates find work in the Australian construction industry soon after graduation, stay for ten years and remit 40 percent of their net earnings while abroad, this would generate a direct economic rate of return on the investment in the APTC of just under 12 percent” ... “In contrast, if APTC graduates obtain work only in their home countries, the ERR in most cases does not exceed 8 percent. This is a result of both the lower salaries paid, but also the lower differential between salaries at different skill levels in the Pacific.”

9 TVET can help close a skills gap if demand for labor exists in the private sector, but in many cases the cause of unemployment is the low labor demand. In this case, the most effective solution for unemployment is policies that promote investment, business activity, and job creation. Similarly, if labor market regulations make the risk or cost of hiring burdensome through disproportionately high minimum wages or large penalties for firing or laying off workers, firms may still not increase hiring even if job seekers have better skills through TVET.

10 There are, of course, other ways that TVET investments could achieve greater impact. For example, using results-based-financing to incentivize providers to better align training with labor market demand. See Helvetas' program in Nepal as an example: <https://www.helvetas.org/en/switzerland/what-we-do/our-topics/skills-jobs-income/education-vocational-skills/skills-development-education-experts/results-based-financing-employment-fund>.

**FIGURE 2. Improving the impact of TVET through linked labor mobility opportunities**



These impacts are likely to be greatest for TVET providers that are training workers for high-demand sectors, such as those supporting digital transformations, healthcare, and the green transition (WEF, 2025; Skills England, 2025). These are all sectors that require a global increase in the number of skilled workers, and frameworks which enable these workers to be as mobile as possible. In this paper, we primarily focus on sectors relevant for the green transition—such as sustainable construction, engineering, manufacturing, as well as specialties such as solar and wind energy (Box 1)—given the scope of current and projected employment growth (International Energy Agency, 2025).<sup>11</sup> Yet the recommendations could just as easily be applied to TVET programs training adult social care workers or lower level computer programmers. What matters is selecting a sector where there is genuine employer demand and a similar set of qualifications/skills in the country of origin and destination. At least initially, it will be important to identify and work with high-performing TVET providers in countries of origin that are meeting local industry demand and placing graduates into jobs at high rates. These providers are more likely to be able to bridge any remaining gap in graduate skills and begin to build trust with employers in countries of destination.

This paper firstly outlines why TVET providers, both those that are government- and donor-supported, should seek to place their trainees internationally.<sup>12</sup> It then outlines how donors, TVET institutions, governments, and industry partners can harness the benefits of labor mobility to improve TVET outcomes through two broad, non-mutually exclusive, options—aligning training content and quality with employer needs; and recognizing certificates and qualifications—with a number of approaches under each. Regardless of the approach chosen, TVET institutions should also

11 While outside the scope of this paper, there is a large literature which looks at how TVET institutions need to adapt their curricula to ensure they are contributing to sustainable development and carbon reduction. In particular, see UNESCO (2020).

12 It is interesting to note that some donors are already linking labor mobility and TVET. For example, Germany is both the most prominent TVET donor and has developed the largest number of bespoke labor mobility pathways to support their employers (Dempster et al., 2021; Warren, 2025). They intend to increase programming on this intersection, with a particular focus on green skills (BMZ, 2023).

provide additional, non-technical, training and services; and negotiate investment and financing for development impact. The primary audience for this paper is therefore those responsible for TVET and skills programming within donors investing in TVET. However, the lessons will also have relevance for national governments investing in TVET; TVET providers themselves; employers in destination countries that will directly benefit from access to new talent pipelines; and non-governmental organizations that are seeking to support, design, and implement TVET programs.

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## Why link labor mobility and TVET

Historically, donor foreign assistance strategies have operated under a “development-in-place” paradigm. As [Tsfaye et al. \(2021\)](#) note, they “focus on rooting people in their communities by investing in more local development—even though research indicates that this is unlikely to work. This approach is underpinned by the view that mobility is a threat and a failure of development.” TVET is no exception. TVET programs are largely judged by their placement rates *within* the country of implementation. Mobility is often seen as a failure of TVET to adequately prepare people for the local labor market and connect training programs with employer needs. In fact, much of the literature surrounding the intersection of labor mobility and TVET focuses on TVET’s role in *reducing* mobility. As [Langthaler and Gündüz \(2020\)](#) note, the assumption is that TVET will lead to employment, income generation, and improved livelihoods, which will reduce pressure on people to leave their countries of origin.<sup>13</sup>

However, achieving higher placement rates within countries of origin may be difficult. In 2024, the World Bank estimated that over the next 10 years approximately 1.2 billion young people in the Global South will become working-age adults, yet the job market is expected to create only approximately 420 million new jobs.<sup>14</sup> This leaves nearly 800 million young people without adequate employment opportunities, presenting a threat to stability in countries of origin and increasing emigration pressure ([Azeng and Yogo, 2013](#); [Bollyky et al., 2022](#); [African Union Development Agency, 2024](#)). While the percentage of vocational students has been increasing, outcomes for these students remain poor.<sup>15</sup> Indeed, it is estimated that a third of formal employers report a lack of skilled labor as an impediment to growth, with skills gaps notable among TVET graduates ([World Bank, UNESCO, and ILO, 2023](#)).

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13 Note that the [Research and Evidence Facility \(2022\)](#) has looked into the TVET investments of the European Union Emergency Trust Fund for Africa (EUTF). They found little evidence that these investments resulted in jobs for trainees, particularly in remote areas, and therefore likely had little impact on emigration aspirations. In fact, an earlier paper found that EUTF TVET investments made people *more* likely to emigrate, but locally and regionally rather than internationally ([Research and Evidence Facility, 2019](#)). A similar finding is contained within [Langthaler and Gündüz \(2020\)](#): “Existing findings suggest that higher levels of education might be among the major drivers for emigration rather than the opposite.”

14 See <https://www.worldbank.org/en/news/press-release/2024/08/12/world-bank-group-launches-high-level-council-to-tackle-looming-jobs-crisis>.

15 Across 70 low- and middle-income countries, the percentage of secondary students enrolled in vocational programs rose from 8.6 percent in 2000 to 11.3 percent in 2020. See [World Bank, UNESCO, and ILO \(2023\)](#).

At the same time, rapid aging in countries of destination has resulted in large and persistent skill shortages across a number of occupations. In 2024, a firm-level survey covering 34 OECD countries found that 70–85 percent of employers found it difficult to recruit suitable personnel, with 15–35 percent reporting severe shortages (OECD, 2024a). Shortages can be found across the skill spectrum, with 40–45 percent of hard-to-fill roles being “mid-skilled”; these roles are not offshorable, not routine, and often require TVET-level training (Chand and Clemens, 2021; OECD, 2024b). This imbalance—between labor market supply and demand—is already increasing emigration pressure and numbers. Yet many prospective immigrants find it difficult to meet the hard and soft skill requirements of relevant visas; those that do manage to emigrate can face under-employment, struggling to get their qualifications and skills recognized in the country of destination (Box 3).

### **BOX 3. Navigating labor mobility policy in countries of destination**

Achieving the impacts outlined in this section is largely predicated on the ability of TVET trainees in countries of origin to obtain work visas in countries of destination. In recent years, some countries of destination have created visas to attract vocationally skilled workers. For example, Germany’s 2023 *Skilled Immigration Act* enabled people with a vocational qualification; at least two years of work experience; a concrete job offer; and knowledge of the German language up to B1 level to enter Germany, bring their family members, and apply for residency and ultimately citizenship.<sup>16</sup> A similar visa has been launched in Italy.<sup>17</sup> The recommendations outlined in this paper would assist trainees in meeting these requirements; particularly providing trainees with a vocational qualification which could easily be recognized by the country of destination authorities.

However, other major countries of destination have yet to do the same. In fact, some are making it more difficult for those with vocational skills to emigrate, favoring those with higher degrees, longer periods of work experience, and higher amounts of capital. This approach may stem from fears of the impact migrant workers will have on native workers, including job loss and wage erosion. These fears are largely overblown—empirical studies have found only a small, negative, impact on low-wage workers in the short-term (Edo, 2018; Edo and Özgüzel, 2023; Dustmann et al., 2016)—yet have been a driving force behind the rise of the far right. To overcome these concerns, it will be necessary to demonstrate the economic contribution that can come from skilled migrant workers, and to facilitate their mobility in a controlled and phased approach, something we propose in this paper. Indeed, the Prime Minister of Spain recently wrote in the *New York Times* that “the only way to avoid decline is to integrate migrants in the most orderly and effective way possible” (Sanchez, 2026).

Our argument is therefore that TVET providers in countries of origin, whether government- or donor-supported, should actively seek opportunities to place their trainees internationally, ideally in partnership with a country of destination. In many ways, this is the reverse of the

16 See <https://www.make-it-in-germany.com/en/visa-residence/types/visa-professionally-experienced-workers>.

17 Article 23 of the Immigration Act “Testo Unico Immigrazione” (Legislative Decree No. 286/1998), as amended by Law No. 50/2023 (“Cutro Decree”) and subsequent amendments.

current model: instead of providing training as a part of projects which facilitate labor mobility; provide mobility options as a part of training-focused projects. Initially, donors should identify and work with existing high-performing TVET providers with programs that are responsive to employer demand; governance structures that make them accountable to industry; demonstrate capacity for continuous improvement; have qualified trainers and adequate and appropriate infrastructure and equipment; and ultimately those that place a high proportion of their graduates into relevant, decent jobs. Box 4 describes this approach and how it builds a pathway to sustainability and scale.

#### **BOX 4. A pathway to scale: working with high-performing TVET providers**

Many of the pilot programs which link TVET and labor mobility were designed as one-off initiatives. For example, Belgium's "Pilot Project on Legal Migration" (PALIM) in Morocco procured a specific, one-time training. Similarly, the follow-on "Towards a Holistic Approach to Labor Migration Governance and Labor Mobility in North Africa" (THAMM) program sought to finance a discrete cohort of trainees. These programs have struggled to grow beyond small cohorts, with total beneficiaries rarely exceeding 100 people. Even pilot programs that have cooperated with existing institutions have struggled to grow. This may be due to having to dedicate substantial resources to bridging the quality gap between institutions in the country of origin and employer needs in the country of destination. As a result of these small cohorts and bespoke designs, the programs tend to have high unit costs (Dempster et al. (2022) found a cost of \$23,500 per person) These high unit costs then result in less development impact as resources are concentrated on the small cohorts.

Instead, our premise is that donors should start by identifying existing high-performing TVET providers that are meeting local demand, and then build labor mobility pathways from these providers. These are sometimes referred to as Centers of Excellence or Centers of Vocational Excellence. It is important to note that these types of institutions are most likely to be meeting the needs of priority growth sectors, most likely at the post-secondary school level, and in public-private partnership with industry. This will be distinct from traditional government-operated TVET programs that are generally focused on artisanal, craft, or basic trade skills, and often integrated into the secondary school system.

This approach would have several benefits:

- **Reduce the complexity** by starting with a TVET provider that is already addressing local demand—delivering high quality programs and achieving high levels of job placement—while also having demonstrated flexibility to adapt programs; a drive to seek international recognition; and flexible delivery modalities.
- **Develop a long-term pipeline of skilled talent.** High-quality TVET providers are likely already producing skilled graduates who could contribute to employers in countries of destination with little additional support. A mobility pathway could start by facilitating the mobility of these existing graduates, while building a longer-term pipeline of skilled talent.

- **Save money, allowing for more investment in long-term benefits.** Delivering stand-alone and one-off training is expensive, often relying on substantial engagement from training institutions in the country of destination. This money could be saved and invested in the needs of the country of origin TVET providers (detailed below).
- **Build trust** in the quality and operations of a TVET provider. Both this, and the fact that they are not delivering bespoke and one-off training, may make it easier to crowd in international and employer investment.
- **Ensure additional, non-technical training and services can be provided.** Drawing on longer-term programs can allow time to incorporate language learning; pre-vet trainees for visas and work permits; create interface points with employers in countries of destination; and incorporate awareness and training for socio-cultural integration. These services can be embedded within the provider or long-term partnerships with other service providers can be established.

A forthcoming paper identifies nine such high-performing TVET providers delivering green skills-related training in Cote d'Ivoire, Ghana, Kenya, Morocco, and Senegal—largely public-private partnerships where industry associations manage training provision (Ricou et al., 2026). These institutions are ready for additional investment to scale their impact, and are eager to explore labor mobility pathways. Indeed, they could place 50–100 graduates per year abroad. Yet these providers still represent a minority of TVET providers. It will be important to demonstrate the success of linking labor mobility to quality TVET provision, thereby providing a blueprint to replicate across the public TVET system in particular.

We argue that successfully linking TVET to labor mobility opportunities could improve the impact of TVET in five main ways.

## Increase the quality of TVET programs

Delivering internationally recognized qualifications would increase the quality of the curriculum delivered and the quality of the equipment and infrastructure used to deliver the training. This would also improve the quality of graduates, whether they move or whether they stay. It would require close cooperation with employers in the country of destination, to ensure the curriculum met skill needs, but this could be supported by donors. For example, APTC was noted to have improved the quality of local training institutions through importing quality standards; developing an improved curriculum framework; facilitating training-of-trainers; and investing in improved equipment and infrastructure that could be used by all trainees (Johanson et al., 2014).

## Increase placement rates and income gains

With increased quality of programs and alignment to international standards, TVET providers should achieve higher placement rates for trainees, whether they move or stay. Yet given the

pace of job creation in countries of origin, TVET institutions are even more likely to achieve high placement rates if they seek to place trainees abroad. For example, the OECD unemployment rate is currently at historically low levels (4.9 percent in April 2025).<sup>18</sup> Similarly, trainees can achieve higher incomes in a country of destination than a country of origin. For example, an Indian solar panel installer can earn around \$2,300 per year in India or at least \$33,000 in Germany, resulting in an individual income gain of \$30,700 (Huckstep et al., 2023). While this wage is offset by the higher cost of living, it still represents a significant real increase. Providing trainees with a qualification recognized in the country of destination would facilitate job entry, enabling them to contribute immediately upon arrival at the correct level, reducing under-employment. These benefits could be even greater for refugees, many of whom are unable to work (or work in their chosen sector) in their host country (Box 5).

## Increase investment in TVET

As discussed in the introduction, under 2 percent of global ODA goes to TVET investments, and low- and middle-income countries only spend 0.2 percent of their GDP on TVET. As the [African Union Development Agency \(2024\)](#) notes, “only a few African governments currently finance TVET at a level that can sustain quality training.” At the same time, as discussed above, employers in countries of destination face significant challenges finding skilled labor to fill “mid-skilled” roles that require TVET-supported training. If these employers found value in recruiting from a specific TVET provider, it is likely they would provide some form of financial and/or in-kind investment to support improvements in program quality and delivery. These investments could be used to invest in relevant priorities such as upgrading equipment and infrastructure, impacting a wide range of outcomes. For example, Independent Economics finds that a 5.6 percent increase in TVET funding leads to an 18 percent internal rate of return (IRR) to the economy (UNESCO and NCVER, 2020). These firms could also lobby and collaborate with their governments to align donor resources for investments.

## Improve TVET revenues

Leading on from the above, increased investments in TVET could then increase the prestige and profile of a provider, leading to other investments that would help shore up a sustainable business model. For example, Refactory Uganda trained 22 refugees in IT skills as part of the “ReadyForIT” program, supporting their move to Italy. As a result, Refactory was supported by the Mastercard Foundation to skill over 9,400 young people for the Ugandan labor market. They are also part of the second phase of the “ReadyForIT” program, skilling 50 refugees, some of whom will move to Italy and

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<sup>18</sup> In low- and middle-income countries, formal employment rates are approximately around 11 percent. Labor force participation is high, but a substantial portion (40 percent) of people work fewer than 35 hours per week, particularly in lower productivity sectors such as agriculture. See <https://www.wiego.org/informal-economy/statistical-picture> and [https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/cdd-and-local-economic-development/blogs.entry.html/2020/07/15/5\\_facts\\_about\\_jobsa-fZkT.html](https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/cdd-and-local-economic-development/blogs.entry.html/2020/07/15/5_facts_about_jobsa-fZkT.html).

some of whom will contribute to the Ugandan labor market.<sup>19</sup> Ongoing contributions from employers in countries of destination could also continue to offset costs associated with mobility pathways—such as language training, additional certification costs, or socio-cultural integration. As discussed in Box 7, migrants themselves can also contribute through mechanisms such as income share agreements (ISAs).

## Increase the attractiveness of TVET, especially for disadvantaged groups

TVET suffers from low prestige, seen as enabling poor academic performers from lower earning households to access lower status and lower paid roles (World Bank, UNESCO, and ILO, 2023; Langthaler and Gündüz, 2020). Yet there is much evidence that having the opportunity to migrate can incentivize more people to invest in training than the number of people who would eventually migrate, known as “brain gain”. For example, Abarcar and Theoharides (2024) found that for every nurse migrant who moved to the US, an additional 10 nurses were created in the Philippines.<sup>20</sup> These opportunities could be offered to poor or disadvantaged groups—such as refugees (see Box 5) or women—to increase take-up of training programs.<sup>21</sup> In fact, the OECD (2018) notes that “well-designed formal TVET programs may be more effective than general (or academic) education for integrating marginalized groups (such as women and youth) into the labor market and improving their earnings.”

### BOX 5. Enabling refugees to benefit from skilled labor mobility opportunities

While there are substantial economic and fiscal benefits to expanding refugees’ access to the labor market, it often doesn’t happen due to political, economic, and security concerns (Clemens et al., 2018). Expanding training and labor mobility opportunities for these refugees, particularly alongside host communities, may be the only way to ensure refugees can use their skills to support the green transition and other sectors facing shortages (Khan and Dempster, 2019). Organizations such as Talent Beyond Boundaries (TBB) have already moved hundreds of refugees, and plan to scale these efforts with a focus on the green transition as part of a new “Green Horizons Platform” (Dempster et al., 2025). Currently these efforts largely focus on *already trained* refugees, yet there is a growing interest in “train-to-hire” models, pairing (predominantly) TVET training with labor mobility opportunities.<sup>22</sup>

19 See <https://www.readyforit-laborpathways.it/> and <https://refactory.academy/financial-aid/10x-program/>.

20 It remains important to guard against promoting an over-supply of training, so that the vast majority of graduates achieve employment—whether at home or abroad.

21 TVET programs are largely out-of-reach for poor and disadvantaged groups, due to the entry requirements (usually a high-school qualification), the cost, and the fact that trainees need to sustain themselves during the course of the program.

22 For example, see UNHCR and IOM’s July 2025 announcement, with a focus on the Asia-Pacific region: <https://www.unhcr.org/uk/news/press-releases/unhcr-and-iom-launch-train-hire-initiative-boost-international-refugee>.

How to do this is still under discussion. In many low- and middle-income countries, refugees face both *de jure* (e.g., refugees are not entitled under national law) and *de facto* (e.g., refugees don't have the right documentation) barriers to accessing formal TVET systems (British Council, 2018). Once these barriers have been overcome, program design must be addressed. For example, a TVET course could institute a refugee quota, ensuring that 10 percent of its students were refugees. At the end of the course, some (or all) of the refugees would have access to international placement as well as (crucially) some host community members. This would help foster national buy-in and encourage social cohesion.

It is worth noting that government-operated TVET providers may not be able to fully take advantage of these benefits. For example, many such providers do not have financial autonomy to be able to receive and utilize additional revenues. Others may struggle to improve quality due to constraints on personnel management, or how much the curricula or content can be adapted. This is why, as described in detail in Box 4, we argue for an approach that starts with identifying and partnering with high-performing TVET providers.

## How to link labor mobility and TVET

The core challenge is how to match a person trained in a country of origin with an employer in a country of destination, in a way that contributes to the economic development of all stakeholders.

The trainee must:

1. **Possess the hard and soft skills that meet employer needs.** This may require support to adjust the content and/or quality of training programs.
2. **Hold qualifications that align with immigration policy requirements.** Yet having the right skills may not be enough; qualifications may need to be officially recognized by employers and the government in the country of destination to qualify under immigration policy requirements.
3. **Be able to communicate in the language of the country of destination.** This may require providing language training alongside hard and soft skills training, and/or connecting trainees up with existing language schools or programs.
4. **Receive adequate preparation and support for integrating into a new culture and society.** It may be helpful to provide support and coaching to employers as well as migrants to facilitate a smooth integration into the workplace. Steps should also be taken to ensure employment agreements facilitate “decent work”.

If properly implemented, these steps will help ensure that a trainee in a country of origin can access “decent work” that matches their qualifications in a country of destination. This trainee will likely send back remittances, technology, and other skill and knowledge transfers which can help support the economic development of their families and communities (Khanna et al., 2020). Yet, these transfers may not do much to ensure that the *country of origin itself* benefits from the labor mobility of their trainees. For this, we need to ensure that governments, employers, and the trainees themselves financially contribute to the country of origin TVET system to compensate for lost skills.

Therefore, if a TVET investment in a country of origin wants to harness the benefits of labor mobility to improve the impact of TVET, we propose two broad, non-mutually exclusive, options—align training content and quality with employer needs; and recognize certificates or qualifications—with a number of approaches under each. Table 1 provides an overview of these approaches, including considerations that should be taken into account; different approaches may be more or less appropriate in different circumstances. Regardless of the approach chosen, TVET providers should also provide additional, non-technical, training and services; and negotiate investment and financing for development impact.

**TABLE 1. Two broad, non-mutually exclusive, approaches to ensure labor mobility improves the impact of TVET**

Description		Considerations
<b>Align training content and quality with employer needs</b>		
Improve the overall quality of a TVET program or provider	Support a TVET provider to improve its overall quality to meet the requirements of employers in a country of destination.	Depending on the baseline level of quality, this may be resource intensive and difficult to achieve. This approach contributes to system strengthening in countries of origin.
Provide “top-up” training	Rather than strengthening a provider in the country of origin, this approach looks to identify the gap between the skills of existing graduates and what is needed in the country of destination and design training just to fill that gap.	This approach may be quicker to implement and would likely require fewer resources. It would be appropriate for positions that require experience. On the other hand, it may be harder to achieve development impact if not tied to a permanent provider. It can also drain “mid-skill” talent which may result in a net loss of skills in the country of origin (Acosta et al., 2025).
Develop a full “away track”	A third approach is to create a dedicated “away track” within a provider and to update just this portion of a providers’ programs to align with needs in the country of destination, otherwise known as the “Global Skill Partnership” model. Common, or fundamental, program components can remain the same while tailoring the “away track” to the requirements of the country of destination.	This can be particularly helpful where conditions or regulations may differ significantly between countries, such as in nursing or the care economy where the nature of work and regulatory requirements will differ. A full “away track” also provides scope to integrate other services like language training. Programs should ensure that the “away track” generates positive spillovers and development impact for the “home track”.
<b>Recognize certifications or qualifications</b>		
Implement Mutual Recognition Agreements (MRAs)	MRAs create a framework that allows for the convertibility and portability of qualifications from one country or regional system to another.	If accomplished, this would allow for direct equivalency of the qualification achieved in the country of origin. This may only be possible to do with one country of destination or bloc, as requirements may differ enough that only one alignment is feasible. MRAs tend to be developed at the system level, and may not be practical for aligning qualifications of just one or a few providers (Acosta et al., 2025). They may also be cumbersome or difficult to develop in practice. An alternate approach would be to develop new or deepen existing MRAs within existing regional economic blocs, such as ECOWAS. This could allow for “trade in education” services within those blocs, integrating the notion of intra-regional mobility.
Support the individual certification of skills in the country of destination	Rather than aligning whole skills qualification systems as in an MRA, it is possible to facilitate individual recognition or re-certification of skills in a country of destination. This can occur through a country of destination qualification authority or training provider testing and validating skills.	This option may be practical for individual providers to pursue, although it creates additional logistical steps that may create risks or bottlenecks to successful mobility, and likely add some cost.
Pursue accreditation in the country of destination	A country of origin TVET institution can seek institutional or programmatic accreditation or equivalency recognition for its programs from an accreditation body in a country of destination.	This option may be practical for individual providers to pursue. It requires up-front effort, but once achieved has little cost. As with MRAs, adding more than one additional accreditation may be difficult. Finally, examples of this type of accreditation are more common in higher education, although some do exist in technical fields.
Form partnerships with country of destination employers operating in the country of origin	Establishing partnerships with employers in the country of destination operating in the country of origin—to support program development and provide work-based learning—can build trust with those employers and facilitate their issuing of qualifications.	Such employers need to be present, the key bottleneck. Where credentials are issued by industry, as is the case with Germany, this can replace the need to have additional training or apprenticeships completed at greater cost in the country of destination.
Deliver industry-issued certifications	Outside of government qualification systems, industry often provides its own certifications. One option for promoting the portability of skills across borders is for TVET institutions in the country of origin to become accredited to offer these certifications.	In many cases, employers may value this type of certification above degrees or formal qualifications. However, they may not necessarily be recognized by immigration authorities for validity with specific visa schemes. They could still be valuable in combination with formal degrees or qualifications.

## Align training content and quality with employer needs

### *Improve the overall quality of a TVET program or provider*

If the goal is to create a pipeline of talent, it may be necessary to build the quality of TVET providers in countries of origin to meet the needs of employers in the country of destination. This work must begin with obtaining an understanding of the skills, competencies, and/or experience required, and then an assessment of the gap between existing provision and employer requirements. Closing this gap could require creating new or updating existing curricula; upskilling existing trainers or hiring new ones; altering training practices to increase the amount of hands-on or work-based learning; and new infrastructure or equipment.

For example, the World Bank’s “Enhanced Vocational Education and Training Project II” aimed to strengthen the TVET system in Nepal.<sup>23</sup> “Part of the project aims to make access to long-term and short-term training more accessible to aspiring and return migrants, as well as to provide testing and certification of skills that repeat and return migrants have acquired through on-the-job experience in foreign countries” (McKenzie et al., 2025). A 2024 review by the Independent Evaluation Group (IEG) looked at one aspect—short-term vocational training for disadvantaged groups—finding an IRR of 12.8 percent (IEG, 2024). However, there are no migrant-specific targets.

As part of assessing the feasibility of linking labor mobility opportunities to a particular TVET provider, it is important to understand whether it is reasonable to be able to raise the performance level of the provider to meet the expectations of employers in the country of destination, and how much time and investment would be required to bridge the gap. In some and perhaps many cases, it may not be feasible or practical. For the time being, this may include many government-operated TVET providers. As noted in the introduction, these providers have a history of not delivering skills that industry needs, leading to low job placement rates.

### *Provide “top-up” training*

An alternate approach is to develop and provide “top-up” training to bridge the gap between existing training and identified needs in countries of destination. This could be done as a supplementary offering by an existing provider, or by a new or different provider targeting the graduates of an existing provider. This approach may also make sense when working with employer needs that require candidates with more experience (“mid-career” jobs) or with providers that do not offer initial or diploma-based training.

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23 See <https://projects.worldbank.org/en/projects-operations/project-detail/P163018>.

For example, the World Bank’s “Skills and Training Enhancement Project” aimed to improve the Bangladeshi TVET sector, in part to help potential migrants access more skilled jobs.<sup>24</sup> The World Bank aimed to work with TVET providers to make them more responsive to private sector needs; make it easier for them to hire teachers, design courses, and spend money; and develop a robust monitoring and evaluation system (World Bank, 2010; McKenzie et al., 2025). It also included a “\$4.7 million institutional capacity building component that works with the government technical training institutions that provide short courses targeted at potential migrants” (McKenzie et al., 2025). According to a review by the IEG, the project justified its investment; under the lowest-impact scenario, the short-term courses offered by the project increased enrollment by 30 percent and increased wages by 10 percent (World Bank, 2020). Unfortunately, again, there were no mobility-specific indicators.

### *Develop a full “away track”*

Finally, TVET institutions could develop a dual-track model, whereby some trainees stay (those on the “home track”) and others move (those in the “away track”).<sup>25</sup> This is known as the “Global Skill Partnership” model, developed by CGD colleagues in 2012, specifically to counter concerns surrounding the mobility of skilled labor, or “brain drain” (Box 6).<sup>26</sup> Ideally, the dual-tracks would deliver exactly the same training to leverage economies of scale, but this depends on employers in the country of origin and destination having the same skill needs. What is more likely is that some of the dual-track is comparable, with additional “top-up” training provided for those on the “away track”.

#### **BOX 6. Country of origin views on labor mobility**

Some countries—particularly those in Asia such as the Philippines, Bangladesh, and India—have long seen the “export” of workers as a development strategy, leveraging their human capital to promote the sending of remittances and other skill transfers. In recent years, this strategy has been embraced by African countries. For example, Ethiopia created a “Job Creation Commission” to sign bilateral labor agreements with countries in Europe and the Gulf to promote the sending of “low-” and “mid-skill” workers<sup>27</sup>; and Kenya is aiming to do the same, with their Minister of Labor recently stating: “We have a very important resource called the human resource... We can ... export our labor and make a lot of money” (Ross and Martinez, 2025).

24 See <https://projects.worldbank.org/en/projects-operations/project-detail/P090807>.

25 A variant of this model, being tested by Germany, is to conduct initial training in the country of origin and then having select trainees migrate to complete final training combined with apprenticeships with German employers. This model is tied to the specific nature of the German-style qualification system wherein local industry chambers and guilds are the certifying TVET authorities.

26 For more on the Global Skill Partnership model, please see <https://cgdev.org/bettermigration>.

27 See <https://justice.gov.et/en/entity/job-creation-commission/>.

There are many different forms of labor mobility which can support the economic development of the country of origin. For example, temporary mobility models are popular with many countries of destination as they allow employers to benefit from skilled labor while ensuring those skills return to benefit the country of origin, thereby not contributing to “brain drain”. As [Langthaler and Gündüz \(2020\)](#) note, “skills partnerships that combine targeted TVET interventions with regular migration opportunities are also considered an effective tool to foster circular migration and return migration of the highly skilled.” Care should be taken to ensure that the skills and experience gained by trainees while they are in the country of destination can be applied once they return to the country of origin, to ensure maximum development benefit.

If longer-term and/or permanent mobility is being encouraged, it is important to interrogate how the country of origin is benefitting from that mobility. Families and communities receive remittances and other knowledge and technological transfers; and the country of origin itself can reduce its unemployment levels. However, there is a larger moral question: if trainees are being supported with public money, it is fair that the country of destination compensates the country of origin for that lost investment. This is where the approach outlined in this paper comes in.

This model has already been piloted around the world. For example, APTC has been offering an “away track” since 2018, connecting trainees in the Pacific Islands with employers in Australia.<sup>28</sup> More recently, the “Skills Partnership between Senegal, Ghana, and Germany” is delivering road construction training in countries of origin to serve employers in all markets.<sup>29</sup> Both of these projects have, to different extents, worked with existing TVET providers in the country of origin to build their quality and capability to deliver training to meet employer needs. While this may require more up-front investment and engagement, this approach is more sustainable and contributes to higher economic development in the country of origin than delivering one-off initiatives (Box 3).

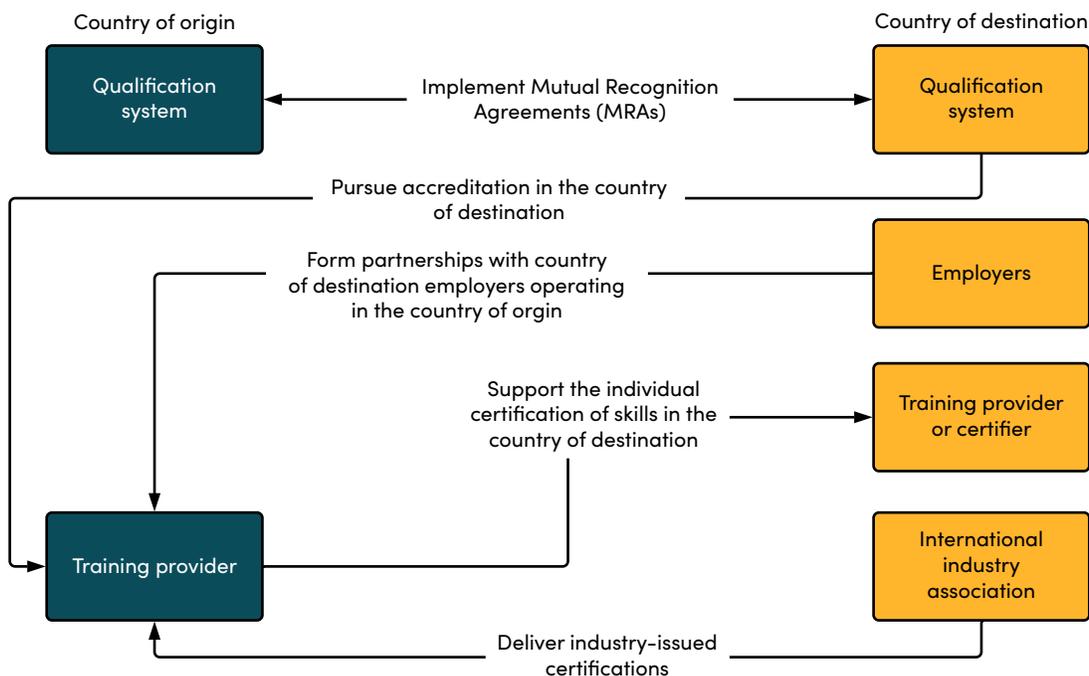
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28 See <https://aptc.edu.au/> and <https://gsp.cgdev.org/2021/07/07/australia-pacific-training-coalition-aptc-2/>.

29 See <https://www.migrationpartnershipfacility.eu/mpf-projects/52-skills-partnerships-between-senegal-ghana-and-germany/preview> and <https://gsp.cgdev.org/2025/08/20/skills-partnerships-between-senegal-ghana-and-germany/>.

## Recognize certifications or qualifications

**FIGURE 3. Approaches that a TVET provider could take to recognize certifications or qualifications**



### *Implement Mutual Recognition Agreements (MRAs)*

Mutual Recognition Agreements (MRAs) are formal arrangements between two or more countries that allow qualifications, skills, or licenses earned in one country to be recognized in another. They often apply to qualifications gained through TVET providers, particularly within regulated professions such as engineering or nursing. Predominantly, they are used to facilitate labor mobility within regional blocs. For example, the European Union's (EU) Directive 2005/36/EC establishes a framework for the process recognizing technical and vocational qualifications across EU Member States, including architects, engineers, electricians, and technicians.<sup>30</sup> The Economic Community of West African States (ECOWAS) has been attempting something similar, currently aiming to harmonize accreditation standards and license recognition for professions such as engineers.<sup>31</sup> Finally, under the Caribbean Community Single Market and Economy initiative, eligible nationals can apply for a skill certificate to work across the CARICOM region.<sup>32</sup>

30 See <https://eur-lex.europa.eu/eli/dir/2005/36/oj/eng>.

31 See <https://archive.uneca.org/stories/ecowas-quality-policy-workshop-agrees-champion-mutual-recognition-agreements-facilitate>.

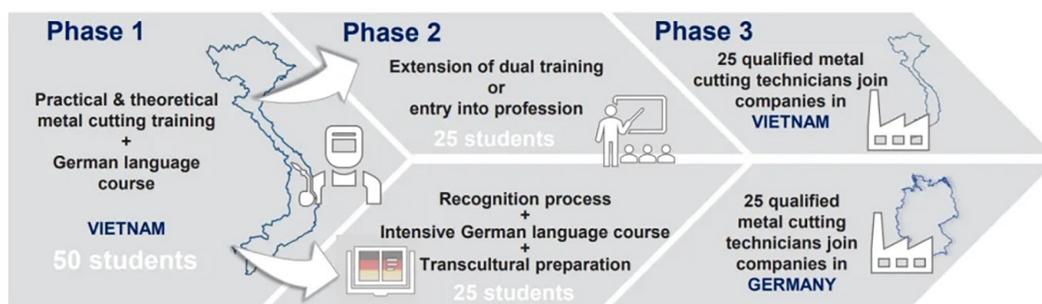
32 See <https://treaty.caricom.org/8sa=D&source=docs&ust=1763464457863915&usg=AOvVaw0kjLV2wbORocw--HUnq81Z>.

If donors investing in TVET are interested in promoting labor mobility, they could consider offering training within one of these regulated professions, as issues of curriculum recognition and harmonization have effectively been dealt with by the MRA. They could also support regional bodies such as ECOWAS to roll out these systems to more professions, and support individual TVET providers to design or update programs to match these international occupational standards. Such TVET providers could specialize in providing training in specific occupations, thereby providing skilled labor across the region and fostering more intra-regional mobility.

### **Support the individual certification of skills in the country of destination**

In the absence of an MRA to provide a blanket recognition of skills, trainees can have their skills individually certified in the country of destination. TVET institutions in the country of origin can explore partnerships with qualification recognition authorities in priority countries of destination to accelerate or streamline assessments of trainees' skills and the issuance of qualifications. For example, under Germany's "Partnership Approaches for Development-Oriented Vocational Training and Labor Migration" (PAM) program, officials in Germany conduct document-based equivalency assessments to certify Vietnamese metal working/cutting vocational qualifications. This can also be part of wider approaches; PAM is also a Global Skill Partnership (Figure 4).

**FIGURE 4. Qualification and mobility scheme piloted within Germany's PAM program**



Source: <https://www.tvet-vietnam.org/regular-labor-migration>.

### **Pursue accreditation in the country of destination**

TVET providers can seek to have their institution or specific programs accredited by an official accrediting body of another country. This would confer recognition of that degree within that country. In a parallel paper, we assessed TVET providers in five African countries which are providing green skills-related programs (Box 5; Ricou et al., 2026). Several providers identified in Francophone Africa noted that they have, or are pursuing, French *Conservatoire National des Arts et Métiers* (CNAM) accreditation for their programs that are at a secondary school plus

three years of training level.<sup>33</sup> Obtaining a foreign accreditation can be a lengthy process requiring a self study evaluating the provider or program against established standards. These are likely to include demonstrating adequate infrastructure and staffing; reviews of curricular content; and management practices that promote quality assurance and continuous performance improvement. In some cases, authorities may require at least one cohort of graduates prior to awarding accreditation. While technical and practical in nature, accreditation for this level of training is considered part of higher education and we are unaware of it being offered for a lower level of education.

### ***Form partnerships with country of destination employers operating in the country of origin***

To support skills acquisition; build the recognition of provider quality; and crowd in employer investment, TVET providers can seek to form partnerships with country of destination employers operating in countries of origin. These employers could be consulted as providers seek to design program content, and provide work-based learning opportunities. For example, Julius Berger Nigeria Plc is a Nigerian engineering firm, which was a subsidiary of Julius Berger International, headquartered in Germany. In late 2020, they established a new artisanal skills development academy in Abuja, Nigeria, together with the Nigerian Federation of Construction Industry (FOCI) and the German development agency, Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ).<sup>34</sup> On launch, FOCI's Director General noted that the academy could train over 1,000 people in construction skills.<sup>35</sup> GIZ is already providing support for training of trainers and curriculum development, and therefore could also facilitate the placement of some trainees in Germany, utilizing the dual and work-based learning structures facilitated by the FOCI Skills Academy.<sup>36</sup> FOCI has recently also become an implementing partner under the World Bank-funded Nigeria Youth Employment through Skills Acquisition Fund (NYESAF), training 100 students in masonry over six months, showcasing how TVET providers can leverage international relationships to garner more investment.<sup>37,38</sup>

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33 Founded in 1794, CNAM is the leading French higher education institution dedicated to lifelong learning. They provide certificates, diplomas, Bachelor's degrees, Master's degrees, and PhD's to approximately 100,000 students globally. See <https://www.cnam.eu/>.

34 See <https://www.julius-berger.com/press/50th-anniversary-commemoration-julius-berger-builds-artisanal-skill-academy-in-abuja-partners-foci-and-giz>.

35 See <https://www.nationalaccordnewspaper.com/fcta-partners-foci-on-construction-skill-john-onah-abuja/>.

36 See <https://foci.org.ng/fsa.html>.

37 See <https://www.thisdaylive.com/2025/06/18/firm-trains-100-nigerian-youths-on-vocational-skills-acquisition/>.

38 Ricou et al. (2026) also identified a program in Kenya where the German firm Krones was offering dual-TVET training in Kenya. See the Finnish and German co-financed "Youth Employment and Vocational Training II" project (2023–2026), implemented by GIZ: <https://www.oph.fi/sites/default/files/documents/Youth%20Employment%20and%20TVET%20in%20Kenya%20-%20Project%20description.pdf>.

## Deliver industry-issued certifications

Delivering industry-issued certifications is another way to demonstrate industry-relevant competencies and place trainees abroad. This is likely to be particularly important within green transition-relevant sectors, as many of the roles are new and require new skillsets, creating the opportunity to develop comparability from the very beginning. The most widely known certifications of this type are issued by major IT firms including Cisco, Amazon, and Microsoft, and are also prominent in fields such as heavy machine operation and welding. One TVET institution in Morocco (*Les Instituts de Formation aux Métiers des Energies Renouvelables et de l'Efficacité Energétique – Tangier*) has obtained accreditation to deliver Global Wind Organization (GWO) certifications including for working safely at heights on wind turbines. Another Moroccan provider (*L'Institut de Formation aux Métiers du Bâtiments et Travaux Publics*) is certified by buildingSMART International to offer certifications in building information modelling.

Each organization will have its own specific procedures, but typically becoming accredited requires demonstrating through an audit that you have adequate facilities, equipment, qualified personnel, and management practices in place. Additionally, a provider's trainers may be required to undergo training to obtain certification as qualified trainers. As these are industry-based organizations, if a provider can demonstrate quality and meet established requirements, getting this type of accreditation is likely to be less bureaucratic than getting accreditation from an accrediting authority in a country of destination.

## Provide additional, non-technical, training and services

Beyond technical training and skills development, it may be necessary to offer non-technical training and services to facilitate successful mobility and integration into the country of destination. For example, a TVET provider may need to offer language training to meet the needs of the country of destination, or partner with an existing provider (such as the German *Goethe-Institut* or French *Alliance Française*) to do so. These schemes are expanding; for example, Italy is working with local providers to deliver Italian language courses to support at least A1 level in specific production sectors as certified by certification bodies.<sup>39</sup> It appears as if some of the costs involved will be covered by the European Union's Asylum, Migration, and Integration Fund (AMIF), while others will be covered by the migrants themselves.<sup>40</sup>

Another way to support prospective migrants may be to coordinate and facilitate the obtention of visas and work permits. For example, APTC aimed to facilitate the labor mobility of close to half of their trainees but up to 2016, only 2.5 percent of graduates had moved (276 of 10,087) (DFAT, 2017;

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39 See <https://integrazionemigranti.gov.it/it-it/Ricerca-norma/Dettaglio-norma/id/18/Formazione-svolta-allestero-finalizzata-allingresso-in-Italia-per-motivi-di-lavoro>.

40 See <https://www.integrazionemigranti.gov.it/it-it/Altre-info/e/2/o/57/id/142/FAQ-sui-programmi-di-formazione-professionale-e-civico-linguistica-allestero->.

Clemens et al., 2014). A range of barriers were identified, including a lack of information about available jobs and how to migrate for work; difficulties with and cost of applying for a visa; lack of reliable internet access; and a lack of contacts in the country of destination able to provide information about accommodation and other support (DFAT, 2017). The “away track” now offers mobility support to help overcome the above challenges.

Finally, pre-departure orientation and support for socio-cultural integration can help prepare migrants to make informed decisions about migrating and to facilitate transition into life in a new country. The International Organization for Migration (IOM), which delivers pre-departure orientation on behalf of clients, has developed a list of 16 best practices in such programs, including developing curricula and support activities in partnership with the country of destination; linking training activities with those that will be provided post-arrival; making use of cross-cultural trainers; focusing on skills and attitudes to support integration; and addressing psychosocial needs (IOM, n.d.). Here, there is a strong role for employers, employer associations, housing associations, and trade unions, in facilitating the successful integration of trainees into their new workplaces and the broader community. This support should be provided before, during, and after mobility.

For example, a project which was aiming to address the issues raised by APTC and meet the IOM’s best practices is the World Bank’s “Skills and Employment for Tongans Project”.<sup>41</sup> One component of this project aimed to support TVET trainees to access jobs abroad, including helping them meet requirements (by paying for English language training and examination fees), while also supporting pre-departure training and strengthening the Ministry of Internal Affairs to provide information on job opportunities and pre-screen candidates (McKenzie et al., 2025). In the end, the project surpassed its targets: 2,878 Tongans were supported to access employment (the target was 2,000) and 13,778 were provided with pre-departure training (the target was 8,000) (World Bank, 2025). The latter cost \$1.3 million, leading to an IRR of 150.5 percent. As the final report notes, this is significantly higher than other IRRs reported by World Bank projects which purely aimed to improve TVET, demonstrating the importance of the mobility component (see Box 2).

## Negotiate investment and financing for development impact

Delivering the above approaches will likely require costly improvements to a country of origin TVET provider to, for example, establish a new laboratory to facilitate high-pressure welder training, or analyze the curriculum to identify where “top-up” training needs to be provided. The TVET provider may also have other investment needs which could improve trainee quality and satisfaction, such as a new dorm, sports facilities, or general equipment upgrades. If a country of destination is to benefit from the skilled trainees produced by this institution, it is only fair that they cover—at least in part—these improvements.

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41 See <https://projects.worldbank.org/en/projects-operations/project-detail/P161541>.

Where could this financing come from? One option is leveraging the development financing (ODA) provided by country of destination governments. As Iqbal and Dempster (2026) outline, many countries of destination are already providing millions of dollars to improve skills development in countries of origin. These investments could be (partially) aligned with skill needs in the country of destination, thereby benefitting employers in both the country of origin and destination, while also securing a higher ROI for the development project (Box 2). Of course, whether and how ODA can be used for labor mobility projects is an ongoing discussion between donors. A recent OECD Development Advisory Committee (DAC) ruled that “activities fostering labor mobility from ODA-eligible countries to non-ODA eligible countries can also be eligible, where the primary purpose is to benefit developing countries (migrants’ countries of origin)” (Weberberger and Gaveau, 2025). For example, this means that ODA could be used to fund the “home track” whereas other financing would need to be secured for the “away track”. Yet ODA could also be used to support a range of other approaches outlined in this paper, such as building the quality of TVET providers.

Another option (and one that may be necessary given DAC rules) is to seek investment from employers in the country of destination. After all, they are receiving the skilled workers necessary to fill shortages and achieve their own business needs. Yet labor mobility projects have traditionally struggled to obtain employer investments, at least in the early stages, due to a number of factors including a lack of trust in the skills and integration potential of the trainee. Recruiting from an existing, high-performing, TVET provider may be one way to build this trust and demonstrate the value of investments (Box 5). Otherwise, it may be necessary to develop a sustainable financial model that asks employers to pay a small amount in the first phase (such as an “on deliver” per-capita payment) and a higher share of the costs in future phases. In the meantime, other financial capital may be needed.

Finally, trainees could be asked to contribute towards their own training and mobility costs. This is controversial. The ILO holds a principle that “workers shall not be charged directly or indirectly, in whole or in part, any fees or related costs for their recruitment” to avoid workers taking out high-fee and -interest rate loans to finance such mobility.<sup>42</sup> Yet the ILO also recognizes that pathways need flexibility to determine exceptions; costs must only be passed onto the migrant if they are in the interest of the worker concerned, limited in their scope, and are disclosed before the job is accepted (Acosta et al., 2025; Dempster et al., 2022). Perhaps we can therefore think about means-testing those who undertake training to support mobility. If they have an existing income (or family income), and are projected to earn, over certain levels, they could be asked to contribute to the cost of their training (and perhaps the training of others). One way to structure these individual contributions is through Income Share Agreements (ISAs) which provide a loan to trainees with built in guardrails that protect the migrant from potential abuse (Box 7).

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42 See [https://www.ilo.org/global/topics/labor-migration/publications/WCMS\\_536755/lang--en/index.htm](https://www.ilo.org/global/topics/labor-migration/publications/WCMS_536755/lang--en/index.htm).

## BOX 7. Income Share Agreements (ISAs)

Individuals who successfully obtain high-quality, relevant qualifications and migrate to a high-income country of destination stand to earn many times more than they could in their country of origin (Huckstep et al., 2023). Often TVET training is provided free-of-charge as a public good. Yet, if someone benefits from this and applies their skills elsewhere, they are capturing this investment as a private benefit. It therefore stands to reason that they should contribute back. Income Share Agreements (ISAs) are one way to structure this individual contribution. A trainee would take out a loan which could cover a range of costs including:

- Costs of training (if not already paid)
- Room and board (if provided)
- Cost of additional services (language, visa/work permits, job placement)
- Direct costs of mobility
- Overhead/administration fees
- Interest, inflation, and/or other metrics of opportunity-cost (important to support the financial sustainability of TVET providers)
- (Perhaps) the cost (or some of the costs) of other trainees who do not migrate

Borrowers are only required to reimburse ISAs if they are employed and making a minimum salary. Using this mechanism, substantial revenues could be achieved at a reasonable burden to migrants. If costs included in an ISA totaled \$10,000, and the migrant earned \$35,000 a year, it would only require 10 percent of income over three years to repay it.

For example, Malengo is an NGO which supports students from Uganda to access higher education in Germany. They enter into an ISA with their scholars to cover the costs. In the 2024 cohort, students only had to repay their ISA if they were living in Germany or another high-income country and were earning more than EUR27,000 per year. In that case, they would contribute 14 percent of their pre-tax income for up to 10 years. If they returned to Uganda or to another low- or middle-income country and they were still earning more than EUR27,000 per year, they would pay 7 percent of their pre-tax income for up to 5 years.<sup>43</sup>

## Conclusion

Linking TVET investments in countries of origin with international labor mobility opportunities offers one of the most effective strategies for improving employment outcomes, raising incomes, and strengthening TVET systems in a financially constrained era. The slow pace of job creation in countries of origin means traditional TVET providers will always struggle to achieve high placement rates and income differentials, even if they manage to overcome other constraints. Placing some

<sup>43</sup> See <https://malengo.org/uganda-germany-program/how-to-apply-faqs/>.

trainees in high-income countries which are struggling with “mid-skill” shortages—particularly in high-demand sectors such as those supporting digital transformations, healthcare, and the green transition—creates an opportunity for “triple-win” partnerships that benefit trainees, employers, and countries of origin.

For donors, the central lesson is to see their TVET investments as part of a broader international labor market strategy. Donors can increase the return on their investments by supporting or replicating high-performing providers with the potential to meet employer needs in countries of origin and destination. Rather than funding stand-alone pilot programs with small cohorts, donors should allocate resources to upgrading the quality of existing TVET providers, and support them to expand labor mobility opportunities for some of their trainees. These initial investments would demonstrate feasibility and could then inspire reforms in the broader government-operated TVET providers to improve performance and achieve greater scale.

This paper outlined a variety of different approaches that could be undertaken, paired with services that make mobility viable: language training; visa and placement support; and integration preparation. To financially support such efforts, donors should seek to leverage investments from country of destination employers, and explore innovative models such as ISAs. At a higher level, donors can play a catalytic role by supporting qualification recognition efforts, regional frameworks, and bilateral labor agreements that reduce barriers for skilled workers. Employers in high-income countries should see an opportunity both to invest to meet their own needs and to lobby their governments to support projects that link training to mobility.

TVET providers, meanwhile, should see global labor shortages as an opportunity to elevate the quality and relevance of their programs. Institutions can adopt dual “home” and “away” tracks; update curricula to meet standards in countries of destination; and pursue accreditation or industry-issued certifications to enhance portability. Building structured partnerships with employers—at home and abroad—can unlock work-based learning, clearer hiring pipelines, and potential investment in training infrastructure. Institutions should also expand non-technical services that support mobility, including language acquisition and cultural orientation. Importantly, leveraging labor mobility partnerships can help institutions diversify revenue streams, strengthening their long-term financial models and enabling continuous improvement. Country of origin governments can support these efforts by considering proven PPP-governance models and reforms to enable government-operated providers to be better able to take advantage of the benefits of adding mobility opportunities.

In a world where labor markets are increasingly global, aligning skills development with mobility is both pragmatic and equitable. It allows donors to demonstrate value in constrained fiscal environments; helps TVET providers raise standards and scale impact; and empowers trainees to access decent work. It can also help accelerate the green transition, both at home and abroad, by increasing the global stock of skilled workers needed to meet investment needs. The challenge now is moving from small pilots to durable, system-level partnerships that mobilize skills for shared prosperity.

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## References

- Abarcar, Paolo, and Caroline Theoharides. "Medical Worker Migration and Origin-Country Human Capital: Evidence from U.S. Visa Policy." *The Review of Economics and Statistics* 106, no. 1 (October 15, 2024): 1–46. [https://doi.org/10.1162/rest\\_a\\_01131](https://doi.org/10.1162/rest_a_01131).
- Acosta, Pablo, Çağlar Özden, Jeremy Lebow, Limon Rodriguez, and Evelina Dahlgren. "Global Skill Partnerships for Migration: Preparing Tomorrow's Workers for Home and Abroad." Washington DC: World Bank, July 2, 2025. <https://openknowledge.worldbank.org/entities/publication/ec7bae47-3efe-459f-b566-e236a7ddd32a>.
- African Union Development Agency. "Continental Strategy for Technical and Vocational Education and Training (TVET) to Foster Youth Employment." Addis Ababa: African Union Development Agency, 2024. [https://au.int/sites/default/files/newsevents/workingdocuments/33178-wd-tvet-english\\_-final.pdf](https://au.int/sites/default/files/newsevents/workingdocuments/33178-wd-tvet-english_-final.pdf).
- Allais, Stephanie, and Carmel Marock. "What Problem Should Skills Solve? Interrogating Theories of Change Underpinning Strategies and Interventions in Vocational Education and Skills in LMICs." *RISE Working Paper 23/136* (March 2023). [https://doi.org/10.35489/BSG-RISE-WP\\_2023/136](https://doi.org/10.35489/BSG-RISE-WP_2023/136).
- Australian Department of Foreign Affairs and Trade (DFAT). "Annex J: A Cost-Benefit Framework for Evaluating APTC." In *Mid-Term Review of the Australia-Pacific Technical College*. Canberra: DFAT, 2009. <https://www.dfat.gov.au/sites/default/files/aptcmttr-annexj.pdf>.
- . "Australia-Pacific Training Coalition Stage 3 (APTC3): Investment Design Document." Canberra: DFAT, September 18, 2017. <https://www.dfat.gov.au/sites/default/files/aptc3-design-document.pdf>.
- Azeng, Therese F, and Thierry Yogo. "Youth Unemployment and Political Instability in Selected Developing Countries." *African Development Bank (AfDB) Working Paper 171* (June 14, 2013). <https://econpapers.repec.org/paper/adbadbwps/467.htm>.
- Barder, Owen. "Aid in the National Interest: When Is Development Cooperation Win-Win?" *Center for Global Development (CGD)* (blog), June 5, 2018. <https://www.cgdev.org/blog/aid-national-interest-when-development-cooperation-win-win>.
- Bollyky, Thomas J., Nick Graetz, Joseph Dieleman, Molly K. Miller-Petrie, Diana Schoder, Sean Joyce, Michel Guillot, and Simon I. Hay. "Growing up and Moving Out: Migration and the Demographic Transition in Low- and Middle-Income Nations." *Population Studies* 76, no. 1 (January 2, 2022): 63–80. <https://doi.org/10.1080/00324728.2022.2034919>.
- British Council. "Inclusion of Refugees in Technical and Vocational Education and Training: An Exploration into Funding, Planning and Delivery." London: British Council, July 2018. [https://www.britishcouncil.org/sites/default/files/inclusion\\_of\\_refugees\\_in\\_tviet\\_report.pdf](https://www.britishcouncil.org/sites/default/files/inclusion_of_refugees_in_tviet_report.pdf).

- Cedefop (European Centre for the Development of Vocational Training). “The Economic Benefits of VET for Individuals” Research Paper No 11 (2011). [https://www.cedefop.europa.eu/files/5511\\_en.pdf](https://www.cedefop.europa.eu/files/5511_en.pdf).
- Chand, Satish, and Michael Clemens. “Labour Mobility with Vocational Skill: Australian Demand and Pacific Supply.” *Center for Global Development (CGD) Working Paper 593* (October 2021). <https://www.cgdev.org/sites/default/files/Labour-mobility-vocational-skill-Australia-Pacific-Working-Paper.pdf>.
- Clemens, Michael, Colum Graham, and Stephen Howes. “Skill Development and Regional Mobility: Lessons from the Australia-Pacific Technical College.” *Center for Global Development (CGD) Working Paper 370* (June 2014). <https://doi.org/10.2139/ssrn.2458188>.
- Clemens, Michael, Cindy Huang, and Jimmy Graham. “The Economic and Fiscal Effects of Granting Refugees Formal Labor Market Access—Working Paper 496.” Washington DC: Center For Global Development (CGD), October 9, 2018. <https://www.cgdev.org/publication/economic-and-fiscal-effects-granting-refugees-formal-labor-market-access>.
- Comyn, Paul. “Investing in TVET and Skills Development.” London: Palladium, August 30, 2023. <https://thepalladiumgroup.com/news/How-Do-Donors-Make-Decisions-About-Investing-In-Technical-and-Vocational-Training>.
- Dempster, Helen, Johann Harnoss, and David Manicom. “Green Horizons: Supporting the Green Transition by Expanding Safe Routes for Refugees.” *Center for Global Development (CGD) (blog)*, July 21, 2025. <https://www.cgdev.org/blog/green-horizons-supporting-green-transition-expanding-safe-routes-refugees>.
- Dempster, Helen, Ismael Galvez Iniesta, Reva Resstack, and Cassandra Zimmer. “Financing Legal Labor Migration Pathways: From Pilot to Scale.” London: Center For Global Development (CGD), June 6, 2022. <https://www.cgdev.org/publication/financing-legal-labor-migration-pathways-pilot-scale>.
- . “We Analyzed 57 Legal Migration Pathways. Here’s What We Found.” *Center for Global Development (CGD) (blog)*, July 16, 2021. <https://www.cgdev.org/blog/we-analyzed-57-legal-migration-pathways-heres-what-we-found>.
- Dustmann, Christian, Uta Schönberg, and Jan Stuhler. “Labor Supply Shocks, Native Wages, and the Adjustment of Local Employment.” *The Quarterly Journal of Economics* 132, no. 1 (October 10, 2016): 435–83. <https://doi.org/10.1093/qje/qjw032>.
- Edo, Anthony. “The Impact of Immigration on the Labor Market.” *Journal of Economic Surveys* 33, no. 3 (December 19, 2018). <https://doi.org/10.1111/joes.12300>.
- Edo, Anthony, and Cem Özgüzel. “The Impact of Immigration on the Employment Dynamics of European Regions.” *Labour Economics* 85 (December 1, 2023): 102433. <https://doi.org/10.1016/j.labeco.2023.102433>.

- German Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung—BMZ). “Skilled Workers for the Global Energy Transition.” Bonn: BMZ, December 2023. <https://www.bmz.de/resource/blob/195360/skilled-workers-for-the-global-energy-transition.pdf>.
- Ginn, Thomas, Reva Resstack, Helen Dempster, Emily Arnold-Fernández, Sarah Miller, Martha Guerrero Ble, and Bahati Kanyamanza. “2022 Global Refugee Work Rights Report.” Washington DC: Center for Global Development (CGD), July 28, 2022. <https://www.cgdev.org/publication/2022-global-refugee-work-rights-report>.
- Hill, Cameron, and Nicola Nixon. “‘Aligning’ Aid: Which Interests and Whose?” *Devpolicy* (blog), April 9, 2025. <https://devpolicy.org/aligning-aid-which-interests-and-whose-20250409/>.
- Huckstep, Samuel, Helen Dempster, and Charles Kenny. “The Billion Dollar Benefits of Expanded Green-Skilled Migration.” *Center for Global Development (CGD)* (blog), September 26, 2023. <https://www.cgdev.org/blog/billion-dollar-benefits-expanded-green-skilled-migration>.
- Huckstep, Samuel, and Johann Harnoss. “A Forest per Worker: Quantifying the CO2 Reduction Contribution of the Marginal ‘Green’ (Migrant) Worker.” *Center for Global Development (CGD)* (blog), January 15, 2026. <https://www.cgdev.org/publication/forest-worker-quantifying-co2-reduction-contribution-marginal-green-migrant-worker>.
- Independent Evaluation Group (IEG). “Implementation Completion Report (ICR) Review EVENT II (P163018).” Washington DC: World Bank, 2024. <https://documents1.worldbank.org/curated/en/099080924164011147/pdf/P163018-7da7f5d1-e325-4d59-8f05-56f4050c5eae.pdf>.
- . “Implementation Completion Report (ICR): BD Skills and Trg. Enhancement Project (P090807).” Washington DC: World Bank, 2020. <https://documents1.worldbank.org/curated/en/502521591979939514/pdf/Bangladesh-BD-Skills-and-Trg-Enhancement-Project.pdf>.
- International Energy Agency (IEA). “World Energy Employment 2025.” Paris: IEA, December 5, 2025. <https://www.iea.org/reports/world-energy-employment-2025>.
- International Labour Organization (ILO). “Greening with Jobs: World Employment Social Outlook.” Geneva: ILO, 2018. [https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms\\_628654.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_628654.pdf).
- International Organization for Migration (IOM). “Best Practices: IOM’s Migrant Training/Pre-Departure Orientation Programs.” Geneva: IOM, n.d. [https://www.iom.int/sites/g/files/tmzbd1486/files/migrated\\_files/What-We-Do/docs/Best-Practices-in-Migrant-Training.pdf](https://www.iom.int/sites/g/files/tmzbd1486/files/migrated_files/What-We-Do/docs/Best-Practices-in-Migrant-Training.pdf).
- Iqbal, Ahmed, and Helen Dempster. “Exploring Donor Investments in Green TVET.” Washington DC: Center For Global Development (CGD), 2026. *[Forthcoming]*.
- Johanson, Richard, Richard Curtain, Peter Mook, and Virginia Simmons. “Independent Review of the Australia–Pacific Technical College.” Canberra: DFAT, November 28, 2014. <https://www.dfat.gov.au/sites/default/files/aptc-independent-review.docx>.

- Khan, Mahreen, and Helen Dempster. “Sharing Responsibility for the Rohingya Crisis: What Role Can Labor Mobility Agreements Play?” Washington DC: Center For Global Development (CGD), December 10, 2019. <https://www.cgdev.org/publication/sharing-responsibility-rohingya-crisis>.
- Khanna, Gaurav, Dean Yang, and Caroline Theoharides. “Beyond Remittances: How Migrant Wages Help Communities Back Home.” *Center for Global Development (CGD)* (blog), November 24, 2020. <https://www.cgdev.org/blog/beyond-remittances-how-migrant-wages-help-communities-back-home>.
- Langthaler, Margarita, and Dilara Gündüz. “Preventing Migration with Vocational Education? Understanding the Migration—Vocational Education Nexus.” *Austrian Foundation for Development Research (OFSE)* Briefing Paper 26 (June 2020). <https://doi.org/10.60637/2020-bp26>.
- McKenzie, David, Charlotte Müller, and Pablo Acosta. “Where and How Is Money Spent on International Migration and Refugees by World Bank Operational Projects?” Washington DC: World Bank, 2025. <https://documents1.worldbank.org/curated/en/099725406092551033/pdf/IDU-58c87dfe-bdd5-4dcf-8c7d-2621b15b4d31.pdf>.
- OECD. “2. Understanding Labour Shortages: The Structural Forces at Play.” In *OECD Economic Outlook, Volume 2024 Issue 2: Resilience in Uncertain Times*. Paris: OECD Publishing, 2024a. [https://www.oecd.org/en/publications/oecd-economic-outlook-volume-2024-issue-2\\_d8814e8b-en/full-report.html](https://www.oecd.org/en/publications/oecd-economic-outlook-volume-2024-issue-2_d8814e8b-en/full-report.html).
- . “Skills.” In *Society at a Glance 2024*. Paris: OECD Publishing, 2024b. [https://www.oecd.org/en/publications/society-at-a-glance-2024\\_918d8db3-en/full-report/skills\\_328509a9.html](https://www.oecd.org/en/publications/society-at-a-glance-2024_918d8db3-en/full-report/skills_328509a9.html).
- . “The Role of Technical and Vocational Education and Training (TVET) in Fostering Inclusive Growth at the Local Level in Southeast Asia.” *OECD Local Economic and Employment Development (LEED) Working Papers* 2018/01 (November 21, 2018). <https://doi.org/10.1787/5afe6416-en>.
- Research and Evidence Facility. “How Does Technical and Vocational Education and Training (TVET) Influence Dynamics of Mobility and Conflict? Lessons from the Horn of Africa.” London: EU Trust Fund for Africa (Horn of Africa Window) Research and Evidence Facility, March 2022. <https://blogs.soas.ac.uk/ref-hornresearch/files/2022/03/How-does-TVET-influence-mobility-and-conflict.pdf>.
- . “The Impact of Youth Training and Employment on Migration Dynamics in the Horn of Africa.” London: EU Trust Fund for Africa (Horn of Africa Window) Research and Evidence Facility, June 2019. <https://blogs.soas.ac.uk/ref-hornresearch/files/2020/02/TVET.pdf>.
- Ricou, Marcel, and Ryan Moore. “Training Service Delivery for Jobs & Productivity: MCC’s Lessons Learned in Technical and Vocational Education and Training.” Washington DC: Millennium Challenge Corporation (MCC), March 2020. <https://assets.mcc.gov/content/uploads/paper-2020001233801-p-into-p-tvet.pdf>.

- Ricou, Marcel, John Mountford, Helen Dempster, and Shona Warren. "A Landscape Analysis of Green Skills TVET Providers: Focus on Côte d'Ivoire, Ghana, Kenya, Morocco, and Senegal." [Forthcoming]. Washington DC: Center For Global Development (CGD) and IREX, 2026.
- Ross, Aaron, and Maria Martinez. "In Search of Economic Boost, Some African Countries Send Workers Abroad." *Reuters*, February 11, 2025. <https://www.reuters.com/world/africa/search-economic-boost-some-african-countries-send-workers-abroad-2025-02-11/>.
- Sánchez, Pedro. "I'm the Prime Minister of Spain. This Is Why the West Needs Migrants." *The New York Times* (blog), February 4, 2026. <https://www.nytimes.com/2026/02/04/opinion/spain-migrants-europe.html>.
- Skills England. "Assessment of Priority Skills to 2030." GOV.UK, November 5, 2025. <https://www.gov.uk/government/publications/assessment-of-priority-skills-to-2030/assessment-of-priority-skills-to-2030>.
- Tesfaye, Beza, Jeeyon Kim, and Natalia Cañas. "Harnessing the Development Potential of Labor Migration: Challenging the Dominant Paradigm of 'Development In-Place.'" Edinburgh: Mercy Corps, March 2021. [https://www.mercycorps.org/sites/default/files/2021-03/PRG\\_LaborMigration\\_R\\_lo\\_0321\\_WEBv2.pdf](https://www.mercycorps.org/sites/default/files/2021-03/PRG_LaborMigration_R_lo_0321_WEBv2.pdf).
- UNESCO. "Skills Development for Renewable Energy and Energy Efficient Jobs." Bonn: UNESCO-UNEVOC International Centre for TVET, 2020. [https://unevoc.unesco.org/pub/solar\\_energy\\_demands-discussion\\_paper1.pdf?deliveryName=FCP\\_2\\_DM220216](https://unevoc.unesco.org/pub/solar_energy_demands-discussion_paper1.pdf?deliveryName=FCP_2_DM220216).
- UNESCO, and International Labour Organization (ILO). "Technical and Vocational Education and Training for the Twenty-First Century: UNESCO and ILO Recommendations." Paris: UNESCO, 2003. <https://unesdoc.unesco.org/ark:/48223/pf0000220748>.
- UNESCO, and National Centre for Vocational Education Research (NCVER). "Understanding the Return on Investment from TVET." Paris: UNESCO, 2020. [https://unevoc.unesco.org/pub/roi\\_practical-guide1.pdf](https://unevoc.unesco.org/pub/roi_practical-guide1.pdf).
- Warren, Shona. "A Global Map of Green Skilled Migration Projects." *Center for Global Development (CGD)* (blog), December 10, 2025. <https://www.cgdev.org/blog/global-map-green-skilled-migration-projects>.
- Weberberger, Katharina, and Valérie Gaveau. "ODA Casebook on Activities in the Field of Migration." Paris: OECD Publishing, January 23, 2025.
- World Bank. "Implementation Completion and Results Report: Skills and Employment for Tongans." Washington DC: World Bank, June 30, 2025. <https://documents1.worldbank.org/curated/en/099080125122034349/pdf/BOSIB-883f5db6-ab58-46b6-8792-68f862094346.pdf>.
- . "Project Appraisal Document: Skills and Training Enhancement Project." Washington DC: World Bank, May 11, 2010. <https://documents1.worldbank.org/curated/en/795911467998484082/pdf/535490PAD0P090101Official0Use0Only1.pdf>.

———. “World Development Report 2018: Learning to Realize Education’s Promise.” Washington DC: World Bank, 2018. <https://www.worldbank.org/en/publication/wdr2018>.

World Bank, UNESCO, and International Labour Organization (ILO). “Building Better Formal TVET Systems: Principles and Practice in Low- and Middle-Income Countries.” Washington DC: World Bank, 2023. [https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed\\_emp/%40ifp\\_skills/documents/publication/wcms\\_888095.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_emp/%40ifp_skills/documents/publication/wcms_888095.pdf).

World Economic Forum (WEF). “Future of Jobs Report 2025.” Geneva: WEF, January 2025. [https://reports.weforum.org/docs/WEF\\_Future\\_of\\_Jobs\\_Report\\_2025.pdf](https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf).

Yavuz, Cem, Sanghwa Lee, Abdelrahman Nagy, Bruno Crépon, Abu Shonchoy, and Birte Snilstveit. “Mapping the Evidence on Learning to Earning Interventions in Low- and Middle-Income Countries: A Framework Proposal and Scoping Review.” *3ie* Working Paper 67 (2025). <https://www.3ieimpact.org/evidence-hub/publications/working-papers/mapping-evidence-learning-earning-interventions-low-and>.