

Session 2, Track 3 | Paper Session: Vocational education and training

Time: Friday, 25th Sept. 2026

2:00pm - 4:00pm

Chair: Margarita Langthaler, Austrian Foundation for Development Research

Gender Inequalities in Green Skills Transitions: Lessons from Solar and Electric Mobility Sectors in India, Philippines, South Africa and Vietnam

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Abstract

The global transition towards low-carbon economies is expected to generate millions of new jobs. In India alone, the solar energy sector could create more than 3.2 million jobs by 2050, while the transition to electric mobility may generate nearly 10 million direct jobs by 2030. However, access to the education and training pathways that enable participation in these emerging labour markets remains highly unequal. Women remain significantly underrepresented in technical and vocational education and training (TVET) and in STEM-related fields relevant to the green transition.

This research examines how inequalities in access to technical education shape women's participation in emerging green labour markets in India. The study focuses on education and training systems linked to the solar energy and electric mobility value chains. Drawing on research conducted under the Indo-German Green Skills Programme, the paper combines national labour-market and education data with state-level case studies from Maharashtra, Karnataka, Telangana, West Bengal and Kerala. Using the Rights–Representation–Resources (3R) framework, the analysis investigates how gender inequalities emerge across policy design, training institutions and school-to-work transitions.

The findings show that gender disparities originate early in education pathways. Women remain underrepresented in technical TVET programmes and engineering-related fields, limiting their access to emerging green occupations. Institutional barriers, including gender-insensitive training infrastructure, limited career guidance for girls, and weak linkages between training institutions and industry, further constrain women's transition from education to employment in green sectors.

To situate the Indian case in a broader comparative perspective, the paper draws on international benchmarking from the Philippines, Vietnam and South Africa. These cases illustrate how gender-responsive TVET policies, support mechanisms like targeted scholarships for women in non-

traditional trades, and regulatory mechanisms linking public procurement to inclusive employment can expand women's participation in technical education and green sectors.

Roles and Agency in German Bilateral TVET Cooperation with African partners

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Abstract

Improving Technical and Vocational Education and Training in emerging and developing countries is widely seen as an essential factor for national development. The SDGs highlight this in particular, though not exclusively, in target 4.3 (affordable quality TVET) and 4.4 (skills for decent jobs and entrepreneurship). In African contexts, the target system is reflected on the macro level of strategic policy formulation by the African Union as an inter-governmental organisation, as well as by numerous Sub-Saharan national government policies.

Germany has been fostering TVET as a core component of its international cooperation portfolio for half a century. In a broader view, the interest in dual know-how from German-speaking countries (D-A-CH) has been at a height for many years – and all through since the publication of the SDGs in 2015.

The paper will focus on the cases of German VET collaboration with South Africa, Ghana, Kenya (and possibly Senegal) and look at cooperation rationales, models, institutionalisation, and the configuration of roles of the bilateral partners. While, in general, a variety of dimensions shape the rationales and objectives of bilateral cooperation settings (e.g. 'developmental' / 'human centred'; economic / business-centred; diplomatic/foreign policy centred; 'educational' / quality centred), each cooperation unfolds country-specific patterns, including narratives, expectations and promises, capabilities, opportunities and limitations. The roles of collaborating partners oscillate within a range of asymmetry/symmetry and are the fluid result of a continuous process of negotiation.

The paper will look at guiding questions such as:

- What underlying assumptions and expectations shape collaboration agreements?
- What are core objectives of bilateral cooperation, how are different dimensions of cooperation objectives calibrated, and how do they unfold in practical implementations?
- How do partners negotiate and adjust their roles in these cooperation settings? How are agency and ownership interpreted and implemented?
- What are (potential) impacts and limitations of international cooperation, especially with regard to equity, participation and social cohesion?
- What mutual or plurilateral benefits do cooperation practices aspire, and achieve?
- What are lessons learnt, to be considered for the future international cooperation designs between Germany (D-A-CH) and African (international) partners? What is transferable, or not, to other cooperation relationships?

The paper will be based on the authors' experiences in designing, implementing and adjusting cooperation activities with the referring countries; on reciprocal assessment by partners in the respective countries; and targeted interviews with selected agents and beneficiaries of cooperation measures.

Access to Vocational Education and Training (VET) and Work from the Perspective of (Labour) Migrants in Germany

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Abstract

Skilled labour migration is a strategy to address skills shortages in the EU (EMN, 2025). Sustainability is of crucial relevance for the success of this strategy, aiming at equal benefits for both destination and origin countries, as well as for the migrants themselves (Sauer, 2023). Approaches address not only the Sustainable Development Goal 4 ("Inclusive and Equitable Quality Education") but also 10.7 (Responsible and Well-Managed Migration Policies") (UN, 2015). Labour migration has the other way round the potential to increase sustainability (Gavonell et al., 2021). This requires ensuring equal access to education and employment for (labour) migrants and the removal of barriers (Kourabas, 2025).

Access to VET is linked to access to work, as VET qualifies people for the labour market. Access occurs at multiple levels (Kleinert & Jacob, 2024). Educational equity means that the transition from (vocational) education to the labour market is equally possible for everyone. All individuals must be afforded equal opportunities to realise their educational potential, regardless of personal and social factors (OECD, 2023). Accessibility measures are necessary to guarantee access. Some of these measures are in place (Klaus & Kühn, 2026). But the perspective of migrants regarding their experiences of access to VET and work is lacking.

This research aims to answer the following research question: How do (labour) migrants perceive access to VET and work in Germany? How do the perceptions of (labour) migrants differ from intentions of the measures currently in place by employers and VET providers?

The research uses a mixed-methods approach based on data from the 'Skill Partnerships for sustainable and just migration patterns (SKILLS4JUSTICE)' project (Horizon-funded). Quantitatively, an online survey was conducted via the Tivian/Uniparks platform. Qualitatively, problem-centred interviews (Witzel, 2000) were carried out. Both the quantitative and qualitative surveys involved not only labour migrants, but also refugees, educational migrants and family reunification migrants.

Some measures mentioned relating to access are described as 'concessions', referring to re-training provided by employers during working hours. The absence of a German passport during job interviews is highlighted as negative, and people with non-German names are at a disadvantage (Kourabas, 2025). Access to work also depends on the occupation, meaning that (labour) migrants with qualifications in so-called shortage occupations are more likely to find further education or employment than (labour) migrants with qualifications in other occupations. Bureaucratic barriers, such as long visa processing times, further complicate access to VET and work.

Educational and Career Guidance Programs Reduce Inequality? Evidence from the Salzburg Talent Check in Austria

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Abstract

In international comparison, educational and career decisions in Austria must be made at a very early stage. Following the first major tracking decision at the end of primary school, students already face a second choice at the end of lower secondary education between an academic track leading to the Matura certificate, full-time vocational schooling, or apprenticeship-based training. A large body of research shows that these decisions are not solely based on academic performance but are strongly influenced by factors such as socioeconomic family background, gender, language use, prior schooling, and social networks. In particular, performance-independent differences in school choice (secondary effects) contribute to the persistence and intergenerational reproduction of social inequalities in the education system.

Against this backdrop, guidance measures at the transition to upper secondary education are often assumed to have the potential not only to support educational decision-making but also to reduce social inequalities. However, empirical evidence remains limited regarding whether such programs actually produce both stabilising effects on educational pathways and a reduction in background-related disparities. At the micro level, guidance interventions theoretically operate through several mechanisms: they can close information gaps—particularly among students from low-income families—by providing reliable information on the costs, content, and returns of different educational pathways; they promote reflection on individual interests, abilities, and aspirations, thereby strengthening autonomous decision-making; and they may function as a motivational tool by encouraging high-performing students from disadvantaged backgrounds to realistically assess their academic potential. Finally, guidance programs may challenge socially shaped norms and expectations and expand individuals' perceived opportunity structures beyond their immediate social environment.

Against this background, we examine the potentially equalising role of educational and career guidance programs using the "Salzburger Talente Check" in Austria as a case study. Introduced in 2016, this instrument represents a conceptual and methodological advancement over traditional potential analyses. It is organised as a station-based assessment conducted in two phases, capturing a range of domain-specific, transversal, and personal competencies as well as interests. A key added value compared to similar programs in other Austrian federal states is the mandatory provision of a professional counseling session, conducted by trained experts with participants and their parents.

The empirical analyses are based on a survey conducted in summer 2025 with N = 413 upper secondary students (grade 10) from different school types (AHS, BORG, BHS, BMS, BS) in the federal state of Salzburg. Respondents were asked retrospectively about their educational decisions and orientations at the transition after lower secondary education, as well as about their educational trajectories up to the time of the survey. In addition, participation in the Salzburg Talent Check at the end of lower secondary education was recorded (participation rate: 76%), allowing for a control group design (participants vs. non-participants). Our descriptive and multivariate analyses yield an ambivalent picture: while participation in the Talent Check is associated with more stable educational pathways (fewer changes) and lower dropout intentions in the current program, there is little evidence of a reduction in social background-related inequalities in educational decisions and trajectories. The paper thus contributes to the ongoing debate on the scope and limitations of guidance interventions in the context of educational decision-making and social inequalities.