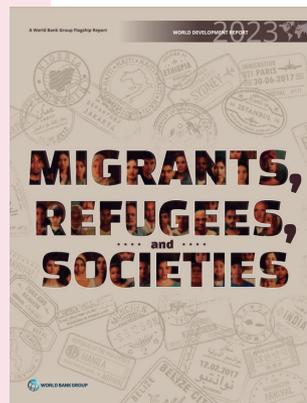


Development Cooperation, Skills and Migration: Embracing the World Development Report 2023 and Beyond

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Luxembourg's development cooperation strategy in partner countries is dedicated to eradicating poverty and fostering economic, social, and environmental sustainability (Luxembourg Aid and Development 2022). The nation prioritises the recommendations put forth by international institutions. In particular, the cooperation strategy aligns with the European Union's joint programming of development cooperation, and the United Nations' Sustainable Development Agenda. In a groundbreaking move, the World Bank has recently released its World Development Report (WDR) 2023 entitled "Migrants, Refugees, and Societies," which serves as a source of inspiration. This report emphasises the role of international migration in development strategies and as a catalyst for prosperity in developing nations. It presents an inclusive framework with the objective of optimising the developmental advantages of cross-border movements for both destination and origin countries. Of particular significance is its practical recommendations for bolstering bilateral cooperation between countries of origin and destination, with a specific focus on facilitating skills

acquisition in the countries of origin, an area where Luxembourg's expertise lies. This policy brief outlines the report's key findings and explores their potential implications for Luxembourg's ongoing cooperation efforts. The timing of the WDR could not be more opportune, aligning just before the release of the formulation of the fifth cooperation agreement between Luxembourg and Senegal, while placing a strong emphasis on skills development in countries of origin.



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WDR in Brief: Rethinking Migrant Categorisation and Emphasising Skills Training

Based on labour economics and international law, the WDR is structured around a “*match and motive*” matrix, which classifies migrants by two dimensions (see Fig. 1): the alignment between migrants’ skills and attributes with the needs of destination countries (strong vs. weak match), and the underlying motives driving their movements (voluntary vs. forced migration). Although boundaries are sometimes blurred, this approach enables the identification of four distinct groups of migrants:

- The first two categories encompass individuals who are either seeking opportunities in the destination country or fleeing persecution, possessing skills and attributes that align well with the needs of the destination society (**top two panels** in Fig. 1). There is a robust consensus that such migration yields net gains for migrants, their country of origin, and their destination country.
- The third category comprises migrants who are compelled to move due to persecution, yet their skills and attributes badly or partially match the needs of the destination society (**bottom-right panel**). International law mandates that destination countries provide protection for these migrants, despite the associated economic costs. By doing so, international protection plays a significant role in advancing the welfare of the global community.
- The fourth category includes individuals who seek opportunities in the destination country, but possess skills and attributes that weakly align with the needs of the

destination society (**bottom-left panel**). Typically, this group consists of migrants who embark on distressed and irregular movements, often enduring significant risks, suffering, or deportation under appalling conditions. Their presence also imposes net costs on destination countries.

The report emphasises the imperative of enhancing migration processes and bolstering the developmental results of migration to ensure mutual benefits for destination societies, origin societies, and migrants themselves. More importantly for cooperation actors, a crucial recommendation entails investing in skills acquisition to enhance the alignment between migrants’ skills and attributes and the requirements of both destination and origin countries through bilateral cooperation. The enhancement of individuals’ skill sets would not only help decrease the need for desperate and perilous migration attempts but also bolster the resilience of workers in their countries of origin.

Although the task of improving people’s skills and attributes to promote development and facilitate safer migration is a formidable undertaking, it requires coordinated efforts and a multifaceted perspective that spans short, medium, and long-term objectives.



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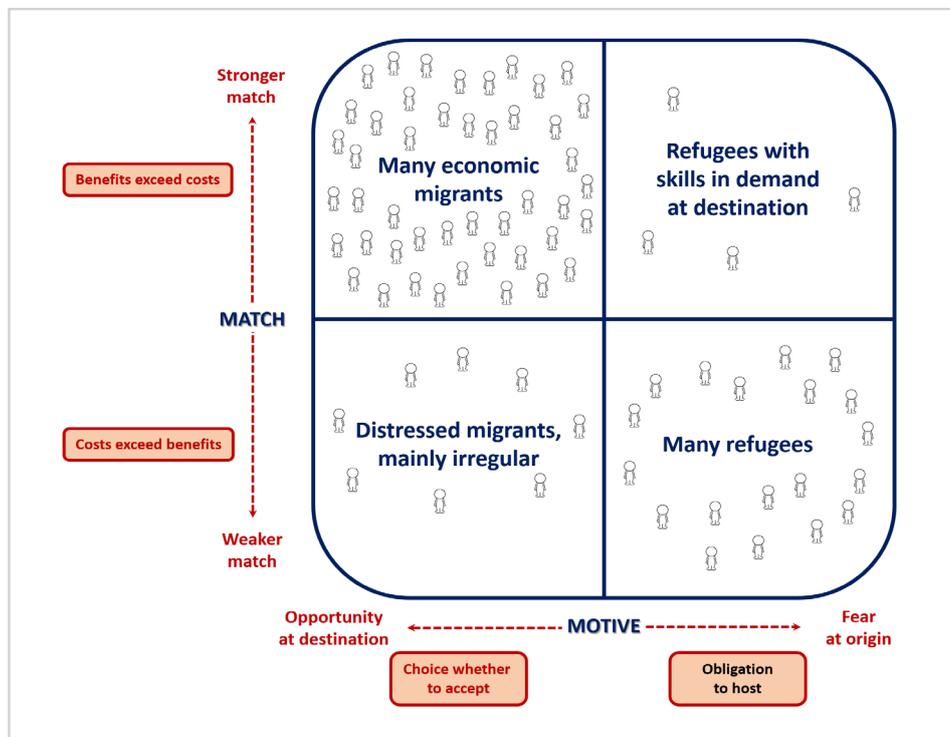


Figure 1: The “match and motive” matrix

Source: World Development Report (2023)

Pre-WDR State of the Art: Enhancing Tertiary Education is the Holy Grail

In the long run, enhancing access to and the quality of education plays a pivotal role in achieving development and fostering economic growth. It is widely acknowledged that countries witness significant productivity enhancements when they raise the proportion of college-educated workers. High-skilled individuals, on average, demonstrate higher productivity and create labour market synergies with those possessing lower levels of education (e.g., Moretti 2004, Jones 2014). Although quantifying the precise impact of human capital on innovation, social cohesion, peace, and stability is challenging, several studies indicate that a greater concentration of highly educated individuals also contributes to institutional advancements (e.g., Murin and Wacziarg 2014) and technological progress (e.g. Caselli and Coleman 2006, Ciccone 2009), while

expediting the demographic transition (e.g., Becker et al. 2010).

Two lessons can be drawn from the existing literature. First, empirical studies suggests that these growth-enhancing effects are more pronounced when human capital is assessed using comprehensive and selective measures, such as the average stock of cognitive skills or knowledge capital, as proposed by Hanushek et al. (2008, 2021), which can be approximated by international assessments of math and science skills. Additionally, studies focused on historical contexts like the industrial revolution (e.g. Squicciarini and Voigtlander 2015, Mokyr and Voth 2009) or present-day developing nations (Castello-Climent and Mukhopadhyay 2013) highlight the significance of upper-tail human capital, approximated by the share of tertiary-educated or STEM workers (those with a background in science, technology, engineering, or mathematics).

Second, valuable insights for policymakers and practitioners can be gleaned from fieldwork and randomised controlled interventions, providing a foundation for designing effective strategies aimed at promoting global youth engagement in education in developing countries. These experimental studies show that enhancing educational outcomes in developing countries requires a combination of actions.

Four core priorities robustly emerge from these experimental studies: (i) *Mitigating participation costs and overcoming barriers* encourages student engagement in schooling (J-PAL 2017); (ii) *Promoting awareness* of the benefits of education help effectively address misperceptions about the benefits of education (J-PAL 2018); (iii) *Customising teaching approaches* is key to align with students' authentic learning levels (J-PAL 2019); (iv) *Enhancing the quality of education* (J-PAL 2022). These pertain to all levels of the education system, beginning with primary and secondary education. Consequently, achieving an increase in the proportion of individuals with tertiary education necessitates a gradual approach that entails well-coordinated and effective reforms.

WDR General Recommendations for Cooperation Policies

Building upon recommendations from hundreds of empirical studies, the WDR offers a set of supplementary suggestions aimed at enhancing the efficacy of cooperative efforts, yielding potential short- and medium-term advantages.

Firstly, it promotes collaboration between rich nations and developing

countries to finance higher education and training programmes which *stimulate the development of sought-after skills needed in both national and global labour markets*. This involves active participation and support for initiatives aimed at improving access to and enrollment in programmes that are tailored to the demands of a globalised world and the challenges posed by technological shifts (e.g., digitalisation) and climate change.

Secondly, addressing the fixed level of schooling within the adult population requires *prioritising vocational training as a means to enhance employment opportunities and labour efficiency*. Many developing nations face the stark reality of women and youth disproportionately experiencing the consequences of poverty, often lacking access to essential skills and competencies necessary for sustainable and productive engagement. It is imperative to strengthen vocational training systems and craftsmanship while jointly aligning them with local labour market needs and the demand for manual tasks in richer countries.¹

Thirdly, understanding the needs of the national and global labour market requires multi-stakeholder partnerships. In particular, *fostering enhanced collaboration with private sector stakeholders and local employment agencies in the main destination countries* is crucial to expanding opportunities for domestic workforce employment, while also keeping pace with the evolving needs of growing and diversifying economies. In particular, conducting surveys to identify local needs and aligning them with national business priorities is important.

¹ This approach is key to bolstering the employability of women and youth who are not currently engaged in education, employment, or training (NEET), and promoting equitable access to decent employment prospects and entrepreneurship.

Fourthly, *developing legal migration pathways for skills that are in demand*, including for lower-skilled workers, helps shift migrants' incentives to engage in training activities. When local incentives are insufficient, enhancing people's internal and international mobility can contribute to improved educational outcomes in their countries of origin.² Existing literature has shown that migration triggers several feedback effects that impact the formation of human capital before migration occurs.³ By enhancing internal and international mobility, these feedback effects can positively shape pre-migration human capital formation and educational decisions, leading to long-term benefits for the origin country. Hence, bilateral labour agreements between countries have proved mutually fruitful in building transferable skills in origin countries, to serve both the global and the domestic labour markets and avoid skill shortages.

Fifthly, rich countries should *help developing countries leverage benefits from the diaspora* in order to facilitate win-win movements. Developing countries benefit most from labour migration when they make it an explicit part of their poverty reduction strategy. They also establish connections with the diaspora and returnees to spur knowledge transfers and to strengthen integration in the global economy. It is important to minimise costs of remittances, a stable source of income for migrants' families supporting various types of investments, by improving technological infrastructure and promoting digital inclusion in remote areas. It is

also crucial to design temporary legal pathways and promote sound economic policies fostering business climate and stable institutions to stimulate return and circular migrations. Finally, connecting migrants with stakeholders involved in business incubation is key, especially in fields such as science and technology, education, training and culture.

Specific Insights for Luxembourg's Development Cooperation in Senegal

Senegal and Luxembourg initiated their development cooperation partnership in 1993 and have recently sealed their fifth collaborative agreement, known as PIC V, spanning from 2024 to 2030. Of particular significance is the educational and training landscape in Senegal. The nation is home to over 16 million people, with nearly 40% under the age of 15. Each year, more than 300,000 young Senegalese individuals enter the job market, often finding themselves either unemployed or working in the informal sector, where wages remain low. It is imperative to implement interventions and offer financial support to enhance access to quality and relevant education and training opportunities, as well as to encourage participation in these programmes. In line with the WDR, three specific recommendations can be made.

Prioritising quality improvement in education and vocational training. – The state of the Senegalese education system highlights the pressing need for comprehensive reforms aimed at enhancing access, completion rates,

² Several pilots of Global Skills Partnership (GSP) schemes have been developed whereby the governments or the private sector in higher-income destination countries finance skill-building programmes in developing countries with the understanding that the graduates of these programmes will be offered an opportunity to obtain a work visa (Clemens 2015). See Bryan et al. (2014) on the benefits from internal mobility.

³ These effects encompass various factors: (i) Collective remittances sent by hometown associations, which are often directed towards investments in educational infrastructure; (ii) Individual remittances that alleviate financial constraints and enable individuals to make greater investments in education; (iii) Transfer of norms and values that can alter perceptions and increase the value attributed to education; (iv) Selective emigration prospects that heighten the expected returns to higher education and stimulate decisions regarding education prior to migration.

and educational outcomes (République du Sénégal 2018, World Bank 2023). In primary education, enrollment rates have plateaued at around 80%, and pass rates hovering around 60%. The situation is even more concerning in secondary education, where nearly 60% of adolescents are not attending school. Participation in tertiary education is below 20%, and only a small number of students manage to attain a university degree. The development and effectiveness of the education and vocational training systems in Senegal face numerous challenges. Despite efforts to enhance access, there remains an unequal distribution of educational resources between wealthier and less affluent areas, as well as between rural and urban regions.⁴ Of critical concern is the quality of education in Senegal, attributed to a relatively low proportion of trained teachers and insufficient infrastructure or resources.

To ensure a significant improvement in teaching quality, it is essential to support both initial and ongoing teacher training, especially in technical education and vocational training. Recent studies underscore the importance of enhancing teachers' pedagogical skills (Bold et al. 2017, Cosentino and Sridharan 2017), incorporating modules on socio-emotional skills (Jennings et al. 2020, Bayley et al. 2021), digital literacy as well as information and communication technologies (Vincent-Lancrin et al. 2022, Unwin et al. 2020). Luxembourg, as a key player in vocational training, can have a substantial impact on prioritising quality improvement in this sector.

Bilateral agreements for boosting human capital formation. – The informal sector predominates in the Senegalese

economy, making it challenging for high-school and college graduates to secure jobs in their respective fields of study. Several recommendations from the WDR emphasise the need to link incentives for education with the potential for skill-biased emigration. Skill-selective emigration opportunities can significantly impact human capital formation. However, the emigration prospects tends to be concentrated in the wealthier departments of Dakar and its neighbouring regions. Regions that are highly vulnerable and experience limited economic development still encounter obstacles to migration and education (Bocquier et al. 2023). Entering into bilateral labour agreements could serve as a compelling incentive for young individuals in Senegal to acquire transferable skills.

For instance, in Luxembourg, skill shortages are particularly pronounced in sectors like ICT, medicine, science, technology, engineering, and mathematics. Additionally, there is a high demand for workers with lower skill levels in areas such as agriculture, home care, food preparation, and construction. Establishing legal pathways for temporary (multi-entry) migration in these sectors could help regulate and monitor entries, while also offering incentives to individuals who might otherwise consider dropping out of training programmes or resorting to high-risk movements. As a complementary solution, Luxembourg's cooperation could contribute to local education reform by providing scholarships for Senegalese university students. Given future economic challenges, focusing on information and communication technologies, climate change adaptation, and banking and finance is advisable. Luxembourg's expertise in

⁴ Bocquier et al. (2023) have constructed an index of tertiary education access for each Senegalese department in 2013, revealing low to very low levels of access throughout the country, except for the four departments in the Dakar region and Bambey in the Diourbel region.

the banking and finance sector, which propels economic growth in the country, can be harnessed for mutual benefit. Senegal, being home to a significant portion of West Africa's banking sector, presents substantial opportunities for collaboration.

Strengthening in-demand skills through innovative approaches. – Luxembourg possesses substantial expertise in vocational training, effectively expanding opportunities for lower-skilled women and youth. Various collaborative initiatives encompassing the teaching of job-seeking skills, entrepreneurship, internships, job placements, mentoring, and coaching are continuously implemented in Senegal.⁵ This domain confronts several critical challenges, including the identification of other in-demand skills and attributes at both the national and global levels, facilitating access to training in underserved, impoverished and rural regions. Encouraging private sector engagement in vocational training is pivotal to ensure the alignment of training programmes with business priorities. To address this complex landscape, Luxembourg could assume a pioneering role through innovative and collaborative strategies. The implementation of a *matching grant system* emerges as a potent approach to stimulate local investment in training programmes. As businesses increasingly commit to vocational training, supported by government subsidies, Luxembourg's contributions would grow correspondingly. This dynamic system enables the vocational training sector to adapt continuously, addressing the nation's growing demand for vocational training.

Stimulating the development of sought-after skills in skill-intensive sectors is also a paramount endeavor, necessitating a long-term and ambitious approach. In particular, Senegal is grappling with a severe shortage of qualified healthcare professionals, compelling the need for an expansion in training capacity within this critical field. Such an expansion requires a transformation in the landscape of medical and health education in Senegal. Senegal has a well-established medical education system, including several medical schools such as the Faculty of Medicine at the University Cheikh Anta Diop of Dakar. Students embarking on a medical education journey in Senegal undertake a rigorous six-year medical programme, culminating in the award of a Doctor of Medicine (M.D.) degree upon successful completion. Unfortunately, those who are unable to complete the programme are left without alternative pathways, with few opportunities to apply their acquired medical knowledge and skills in other healthcare roles. This rigidity in the programme restricts its ability to cover the full spectrum of healthcare services required by the country. Diversifying the health education ecosystem is a necessary step to meet the growing demands for healthcare services, expand career options (including nursing, public health, pharmacy, etc.), and elevate specialisation levels in specific areas (such as infectious disease, maternal and child health, etc.). The establishment of a Faculty of Health Sciences within the public higher education system would introduce the flexibility needed in educational pathways, benefiting both students and the healthcare system as a whole.

⁵ One notable project, the Skills for Jobs and Competitiveness initiative, focuses on enhancing technical and vocational education and training (TVET) systems, with a specific focus on fields such as tourism, horticulture, and agriculture.

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