UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

HEAVY DUTY EQUIPMENT AND COMMERCIAL VEHICLES ACADEMY (HDECoVA)

LESSONS LEARNED FROM A PUBLIC-PRIVATE DEVELOPMENT PARTNERSHIP

Sida VOLVO VOLVO GROUP SELAM Children's Village

INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT

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FOREWORD

The Heavy Duty Equipment and Commercial Vehicles Academy (HDECoVA) is a state of the art vocational training centre for machine technicians – the first of its kind. It was launched in Ethiopia in 2012 by the Volvo Group in collaboration with the Swedish International Development Cooperation Agency (Sida) and the United Nations Industrial Development Organization (UNIDO).

Ethiopia's economy is growing fast and with it the demand for skilled labour is increasing. So far, the educational system has been unable to keep pace and a lack of well-trained machine technicians has prevented companies, such as Volvo, from expanding their business. Volvo dealers are having difficulty finding personnel with the right training to maintain and service the vehicles.

The HDECoVA pilot project is a successful example of how to close the skills gap in developing economies and at the same time leverage new funds for development, with multinational companies as core project partners. The direct beneficiaries of this project are young people who acquire relevant skills to enter the labour market. The vehicle technician programme gives them a better opportunity to support themselves and contribute to the country's growth. It also generates value for the country, as well as for the industry in which the Volvo Group operates. It enables Volvo to rely on qualified local workers who would remain in the country permanently, instead of hiring expatriate technicians.

HDECoVA is a private-public development partnership (PPDP) project, where a big multinational company is a core project partner. The success of the project highlights the big potential of the private sector for both the direct beneficiaries and the growth of the local economy. It clearly demonstrates that involving the private sector actively as a core partner raises significantly the quality of the results.

It is critical to build the capacity of local institutions to provide international-quality training programmes. This and similar projects will enable Ethiopia to not only produce the expertise needed to support continued and strong economic growth, but will also provide youth with improved opportunities to secure long-term productive employment.

UNIDO and Volvo have established two similar training academies, one in Zambia and the other in Morocco.

I would like to acknowledge the work of the colleagues who have been involved in the implementation of the project:

Implementation: Mattias Larsen (Project Coordination Specialist), Abera Melesse Ayalneh (National Project Coordinator), Hailegebriel Woldeyohanis (Logistics Assistant), Per-Olof Andersson (Chief Technical Advisor), Kassahun Ayele Tesemma (Senior Capacity Building Expert), Haregewoin Gochel Agonafer (Administrative and Finance Assistant), John Pratt (Trainer Competency Development Expert), Getachew Ephrem Woldegiorgis (National Project Coordinator) and Bashir Conde (Project Manager)

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Abbreviations and acronyms

CSR Corporate Social Responsibility
EU European Union
FAO Food and Agricultural Organization
GDP Gross Domestic Product
GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit,
HDECoVA Heavy Duty Equipment and Commercial Vehicles Academy
HER Heavy Equipment Repair
HQ Headquarters
IDEA Inclusive Development and Entrepreneurship for All
ILO International Labour Organization
IMF International Monetary Fund
ISID Inclusive and Sustainable Industrial Development
LKDF Learning and Knowledge Development Facility
M4P Markets for the Poor
M&E Monitoring and Evaluation
MoU Memorandum of Understanding
NGO Non-Governmental Organization
PPDP Private-Public Development Partnership
SAT Swedish Academy for Training
Sida Swedish International Development Cooperation Agency
SINCE Stemming Irregular Migration from Northern and Central Ethiopia
SME Small and Medium-sized Enterprises
ToT Training of Trainers
TVET Technical and Vocational Education and Training
UNIDO United Nations Industrial Development Organization
ZAMITA Zambian Industrial Training Academy

Executive summary

Background

The United Nations Industrial Development Organization (UNIDO), Swedish International Development Cooperation Agency (Sida), Volvo, and Selam Vocational Training Center in Ethiopia, have joined forces in a public-private development partnership (PPDP) to provide Ethiopian youth with training in advanced vehicle maintenance. A pilot project, the Heavy Duty Equipment and Commercial Vehicles Academy (HDECoVA) aims to serve as an example of how to effectively (i) provide underprivileged youth with income opportunities and close skills gaps in developing economies (ii) achieve change in the Technical and Vocational Education and Training (TVET) system, notably towards adopting a more labour market-relevant approach, and (iii) leverage new funds for development.
The final evaluation of the project concluded that it has been successful in its first objective, providing labour market relevant skills to youth, and in its third objective, which was met when the project agreement was signed. The evaluation also found that there is not (yet) an impact at a systemic level for TVET, however. Given the successful outcomes in terms of employment and the still unmined potential for PPDPs in TVET and other sectors, there is an interest in garnering lessons learned from HDECoVA, in exploring the potential for scale-up, and in communicating findings to a wider audience. The purpose of the present report is to compile these lessons learned and highlight ways in which UNIDO could move ahead with scaling up the HDECoVA approach.

Lessons learned from HDECoVA

The experience of HDECoVA shows that:

- PPDPs can work well in vocational training. Involving the private sector actively as a full partner raises the quality and relevance of training, which is essential for creating job opportunities and reducing skills and productivity gaps in the private sector. HDECoVA students have found gainful employment in the transport sector and their technical knowledge is much appreciated by employers.

- Participating organizations can learn, grow and change with these collabourations. Volvo, Selam, Sida and UNIDO have all established new collabourations, in different constellations, based on the HDECoVA model.

- Private sector partners are central to the PPDP projects. In HDECoVA, as in other PPDPs, a multinational firm is a core project partner. The partner firm provides the technical input and ensures relevance of training. The local private sector also provides input to curriculum revision, receives students for cooperative training, and employs graduates. Building coalitions with both local stakeholders and the core private sector partner may take some time, but is essential to long-term success.

- Context matters. PPDPs are likely to succeed better in high growth environments, such as Ethiopia, where the demand for qualified workers remains constantly high and employment outcomes are hence positive, and where there are strong incentives for private sector and the broader government, beyond the Ministries of Education and Training, to continue supporting the model.

- PPDP projects are human resource intensive and require a range of different capabilities. UNIDO has filled multiple roles over time: coaching school management, providing day-to-day project management, business plan development, donor outreach and general liaison with different stakeholders. To ensure sustainability, these capabilities need to be in place in school management at the end of PPDP projects.

- Financial sustainability must be ensured from the outset. Government budget constraints contribute to poor quality of TVET in many developing countries, and government funding cannot be expected to address the higher expenses associated with providing modern and constantly upgraded training. HDECoVA's business plan is a good example of innovative ways in covering expenses by providing commercial services to private firms or individuals.

• Some measure of donor participation is needed. Donors share financial and reputational risks, provide links to government structures, and are a stamp of approval for development approach.

• The choice between a public TVET partner and an NGO could imply a trade-off between within-project efficiency and systemic change. HDECoVA is based in Selam, a capable partner which operates independently of the government system and has long standing experience of hands-on practical training and internships/apprenticeships schemes. The project has existed in some isolation from the TVET system it is intended to influence, however. At the same time experiences from other PPDPs show that systemic change is not easy to achieve with a public school partner, either.

• High teacher turnover is an endemic problem in skills upgrading projects in countries with significant skills gaps in the private sector. It remains a problem even in HDECoVA, where teachers' compensation levels have been adjusted and the teaching environment is positive — with advanced equipment, high motivation among students, opportunities for continuous skills upgrading, etc. Teachers compensation and non-monetary incentives must be factored into operational costs, including sustainability plans, and human resources management.

What makes HDECoVA special?

UNIDO has entered into PPDPs in several developing countries. The interest in the PPDP model is due to its numerous strengths it presents, in particular in settings where there are investment opportunities for foreign and local firms, the local private sector is vibrant, and there is an unmet and long-term need for skilled workers.
The PPDP model, exemplified by HDECoVA and its sister projects in Morocco, Zambia, Iraq, and other countries, holds several advantages from a development perspective. PPDPs trigger interest and leverage resources from the private sector and guarantee high quality training. Their focus on labour market relevant services and capabilities and hands-on training also increase the employability of their students, which is a key objective. If used effectively, the high quality of training can provide a basis for the school's financial sustainability. PPDPs are complex, however, because of the involvement of stakeholders with very different organizational cultures. They are not well suited to low growth contexts and require specific mechanisms to reach more vulnerable groups, especially in low income countries where the level of education and access to post-basic education are both low.
HDECoVA has achieved better employment results than the PPDP projects in Zambia and Iraq, however. Part of the gap in outcomes is related to the country economic and political context (in particular security issues in Iraq, and volatility in the mining sector in Zambia). However, HDECoVA also has some specific design features that are particularly commendable. First, the transport sector with significant and relatively stable demand for skilled technicians was arguably a good choice. Second, the high quality of the cooperative training, which include a specific protocol for training and communication between school-instructors, company supervisors, and students is of high quality. Third, approach of reaching out to communities to engage female students has been very successful. Fourth, a promising business plan including a range of services for private sector and individuals that can guarantee financial sustainability, has been established.

Scaling up HDECoVA

The strong results of the HDECoVA model could be taken further in different ways. First, the model could be scaled up by transforming the school into a center of excellence for trainers, which could be used to diffuse skills development further to other schools. Second, the model itself could also be replicated in other schools and other sectors.

Center of Excellence – Training of Trainers

HDECoVA is already providing services to the TVET system outside of its core activities: training of trainers and technical assistance in setting up well-functioning cooperative training systems for public schools that have shown interest in the model, and training and graduation of trainers at the polytechnic level. The additional services are

taking up significant resources in terms of teachers, workshop/equipment availability, project management and school management. They need to be costed and reimbursed accordingly, to reflect resource use in HDECoVA. Free-of-charge skills upgrading for other schools is not sufficient to achieve systemic change, moreover. First, this set-up removes the pressure for other schools to identify new partnerships and modalities of operations. Second, the skills impact will be limited, if trained teachers return to schools that do not have access to modern equipment for hands-on work by students. Finally, skilling up teachers from TVET schools that lack modern technology and where teacher compensation is lower than at HDECoVA, increases the risk of teacher attrition. Hence, training of trainers would only be meaningful for more advanced schools that have established some an MoU with private sector partners or other strategies to acquire relevant equipment and training material.

Replicating HDECoVA in other sectors

As recognized by UNIDO, PPDPs are largely opportunity-driven. When a private sector partner and/or donor embassy is involved, the process of identifying and getting a project off the ground is faster than when UNIDO has lead the process of forging the partnerships. The latter case requires a strategy on how to identify sectors and stakeholders of interest. The process is likely to be path-dependent: donors and private sector partners differ between sectors, and the combination of donor and private sector partner is often, although not always, related to nationality, as many countries now promote stronger aid-trade links.

UNIDO's country programs are a natural entry point for PPDPs. Priority sectors should have been vetted for growth and job creation potential, comparative advantage of UNIDO, country-strategic priority, transversal links with UNIDO's activities, donor presence, and funding opportunities. Ethiopia is an interesting example, as it is a pilot country for UNIDO's Programme for Country Partnership (PCP). The Ethiopia PCP focuses on agro-industry, leather, and textile and apparel as target industrial sectors, because of their links to agriculture, and their growth, job creation, and poverty-reducing potential. Two more transversal sectors, transports and renewable energy, could also be important sectors for future partnerships: transports, because it would build on experiences in the current project and because of its links with infrastructure and inclusive industrial development, and renewable energy, because of its global importance, the growing awareness of the urgency to identify clean energy opportunities also in developing countries, and donor interest in this area as a transversal theme.

Donor participation will very likely be needed to share financial and reputational risk. Donors differ somewhat in their approaches, but several bilateral donors (UK, Denmark, Italy, Netherlands) explicitly look for aid-trade links in their programs. UNIDO is already working with bilateral and multilateral donors in different sectors and these relationships can be explored further.

Lessons for UNIDO

How can UNIDO use its experience and capacity do to identify opportunities for further PPDP and increase their effectiveness? Two key lessons emerge from the information gathered from this report.

- There is a need to strengthen business engagement, starting off by mapping out the most important and strategically important actors. This is a resource demanding undertaking as the chambers of commerce are often not sufficiently effective mechanisms for reaching out. Joining efforts with other actors that are likewise engaged in private sector collabourations (e.g GIZ) may be useful.

- More resources are needed to handle the different levels of engagement. PPDP projects are resource intensive to manage and project managers are not well placed to handle both day-to-day management of the project, while also building up conditions for the institutional and financial sustainability of the project, liaising with donors and firms, and focusing on advocating scaling up and systemic change. All PPDPs within the Learning and Knowledge Development Facility (LKDF) should lead to systemic change and yet all PPDPs face challenges in moving this proccess, which provides scope for cross-project learning. UNIDO must consider how to most effectively provide the strategic support, and at what level: project, PCP, or centrally (HQ) where the functions could be applied across several projects.

Introduction

Background

UNIDO is committed to promoting high-quality and labour market-relevant technical skills for young men and women. UNIDO's skills development activities aim to increase young people's employability and reduce skills constraints in local businesses, and ultimately to foster productivity, economic growth, and sustainable employment.

Engaging the private sector is a critical component to improve the relevance and quality of skills, create linkages between schools, students and firms, and help identify sustainable sources of funding. In a public-private development partnership (PPDP), among the first of its kind, UNIDO teamed up with Swedish Sida, Volvo, and Selam Vocational Training Center in Ethiopia, to provide Ethiopian youth with training in advanced vehicle maintenance in the Heavy Duty Equipment and Commercial Vehicles Academy (HDECoVA, sometimes henceforth referred to as the Academy). The project aimed to assist underprivileged youth in securing gainful livelihoods by providing them with technical training, facilitate Ethiopia's economic transformation by closing skills shortages in critical modern sectors, and leverage funds for development through innovative partnerships.

The HDECoVA project, initiated in June 2012, came to an end in December 2017, with a no-cost extension until mid-2018. The project is considered a success, by UNIDO, Sida, Volvo, and the Government, and has served as a model for similar projects replicated in Morocco and Zambia. An independent terminal evaluation concluded that the project was satisfactory and that it *"[–] has successfully demonstrated a new approach, managed different types of inputs and resources from different partners, produced good results and it has relatively good sustainability prospects"*. [1] Given its perceived successes and the unmined potential for PPDPs in TVET and other sectors, there is an interest in garnering lessons learned from HDECoVA, exploring the potential for scale-up, and communicating findings to a wider audience.

Objectives and organization of the report

Against this background, the objective of this report is to (i) provide an analysis of the broader impact of the project in terms of economic, social and institutional/systemic effects, (ii) synthesize lessons learned, (iii) identify new opportunities for scaling up, and (iv) devise a strategy for communicating these lessons to existing and potential stakeholders. The implication of the last objective is that the findings of the report aim for a wide audience, including the private sector, donors, government and schools.

The report is organized as follows: The next section provides the country context for HDECoVA, focusing on Ethiopia's achievements and challenges. The third section looks at the experience from the HDECoVA project, the social, economic and institutional impacts achieved, and lessons learned for future project implementation (corresponding to section 1 and 2 of the Terms of References). The fourth section addresses the issue of scaling up and achieving systemic change, in terms of different modes, potential partners, and organizational issues, and concludes with recommendations for UNIDO.

1 UNIDO, 2018a, Terminal Evaluation: A public-private Partnership project training academy in heavy duty equipment commercial vehicles in Ethiopia, p. 10.

Approach and delimitations

Sources of information

The report is based on desk research, phone interviews, as well as information gathered during a visit to Addis Ababa from 17-21 September 2018. More specifically, the report draws on the following sources of information:

(i) Project documentation for HDECoVA, as well as for two similar projects in Kurdistan, Iraq (Swedish Academy for Training, SAT) and Zambia (Zambian Industrial Training Academy, Zamita).

(ii) Online research on websites of donors and companies.

(iii) Phone interviews with the UNIDO project management team in UNIDO HQ, Volvo representatives, and the consultant involved in the evaluation of HDECoVA in early 2018.

(iv) Meetings with HDECoVA project staff, Selam management, one instructor, current and former students of the academy, Sida staff in Ethiopia, representatives of the Equatorial Business Group (EBG) and Volvo, technical advisors at GIZ, staff at a public TVET college, staff at the Federal TVET Agency (FTA), the country coordinator for the UNIDO Programme for Country Partnership (PCP) for Ethiopia, and the Li-Way Ethiopia team[2].

A list of meetings and interviewees is provided in Annex 1.

Delimitations

Ethiopia is in the midst of a significant political transition. At the time of the mission, hierarchies, staff and positions were being decided upon, and the administration was caught up in high-level strategy and policy discussions. Meetings with the government, either at the political or technical level, could not be organized.[3] The political transition and the short time frame of the mission also made it difficult to organize meetings with donors. Hence, research into strategies, project approaches and partnerships has been limited to documentation available on their respective websites. The information available is generally brief, incomplete, and aimed at a non-technical audience. It is not possible, from these sources, to gauge potential interest in the HDECoVA model, as might have been possible with interviews.

UNIDO wishes to explore different options for scaling up: countries, sectors, donors, and partnerships suited for entry. It is beyond the scope of this report (and of any report) to canvas, globally, or even regionally, the programs of donors, potential private sector partners, and sectors with simultaneous potential for growth and skills gaps. Moreover, PPDPs are a path dependent process. [4] The partnerships will look very different depending on the entry point (a rapidly growing sector with manifest skills gaps, a donor open to partnerships, private partner interested in collaborations because of their own investment strategy or CSR policy, UNIDO's own strategy).

2 Li-way is a Sida-funded programme which uses the M4P approach in bringing private sector and less privileged youth and women together, and which includes skills upgrading and work in the TVET sector among its activities.

3 For example, the deputy minister for TVET is a supporter of HDECoVA, but was not available for a meeting. The project manager in the Federal TVET Agency that was available was not well acquainted with the project.

4 This is recognized by UNIDO "The PPDP project idea […] can for example, come at the country-level from the business and the Embassy of the donor – this is a good origin for the PPDP as for this to happen the company would have a clear business case for the project and there would be a clear indication from the donor's side that they would like to participate. In other cases, UNIDO takes the initiative and lobbies the government for the project and then identifies the business partner. In this latter configuration it has taken several years to get the project agreed with the government and there have been some delays in execution." LKDF, 2015, How-To Guide: Developing and Implementing a Vocational Training Public Private Development Partnership, p.10.

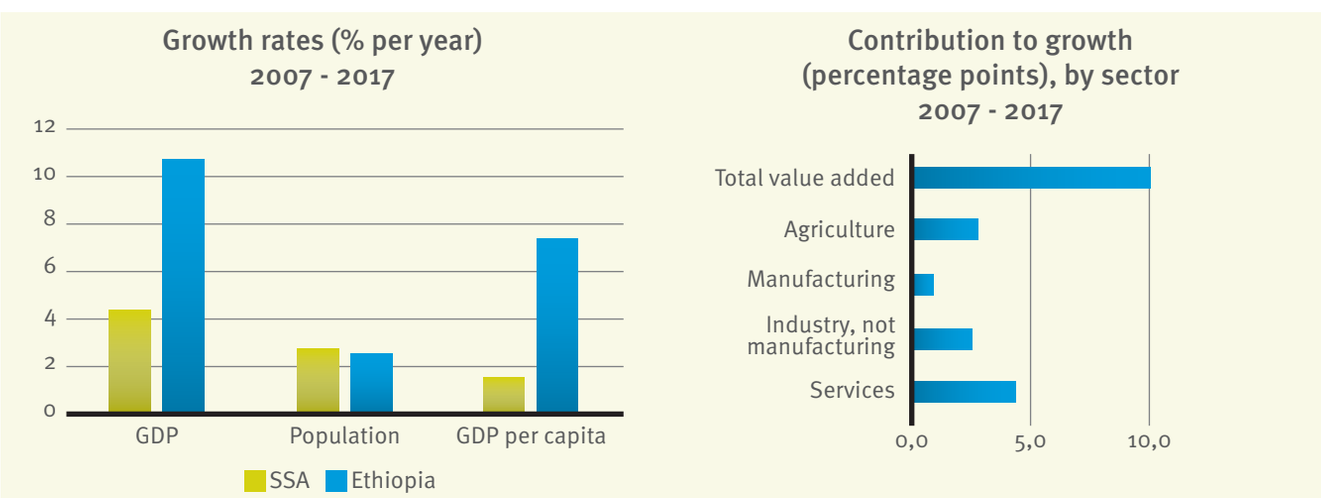
Ethiopia: Macro-economic and social context

Since the turn of the millennium, Ethiopia has experienced a tremendous economic boom. GDP growth has exceeded 10 percent per year on average, compared to under 4 percent for the Sub-Saharan region as a whole. With population growth at around 2.6 percent per year, Ethiopia has consequently seen sustained improvement in per capita income levels (Figure 1, a). Growth has largely been driven by public investment and the expansion of agriculture, construction and services. The contribution of manufacturing growth has been more subdued, however (Figure 1, b). Like many economies on the African continent, Ethiopia's employment structure is characterized by largely informal and low-productivity activities. Agriculture accounts for 71 percent of employment, and services for 21 percent, of which almost one third lies in wholesale and retail. The share of employment in industrial sectors, especially those focused on international trade, remains low and likely below potential: in 2013, jobs in industry accounted for 8 percent of all employment in Ethiopia.[5]

Growth is expected to remain high in the coming years, above eight percent over the medium term.[6] The government's strategy is now focused on shifting sources of growth away from public investment, and towards private investment. The promotion of light manufacturing with export potential, especially in leather, textiles and apparel, and agro-processing sectors, and cluster development through industrial parks, is central to the agenda. To foster broad-based, regionally decentralized and export driven growth, efficient transports and logistics services will also be essential.

Ethiopia is undergoing a significant and promising political democratic transition. Since April 2018, with the arrival of a new prime minister political prisoners have been released, dissidents have been allowed to return home, media have been liberalized, and the war with Eritrea has ended.[7] These changes are very promising from a human, political and economic perspective.

Figure 1: Growth and contribution to growth in Ethiopia



Source: World Development Indicators.

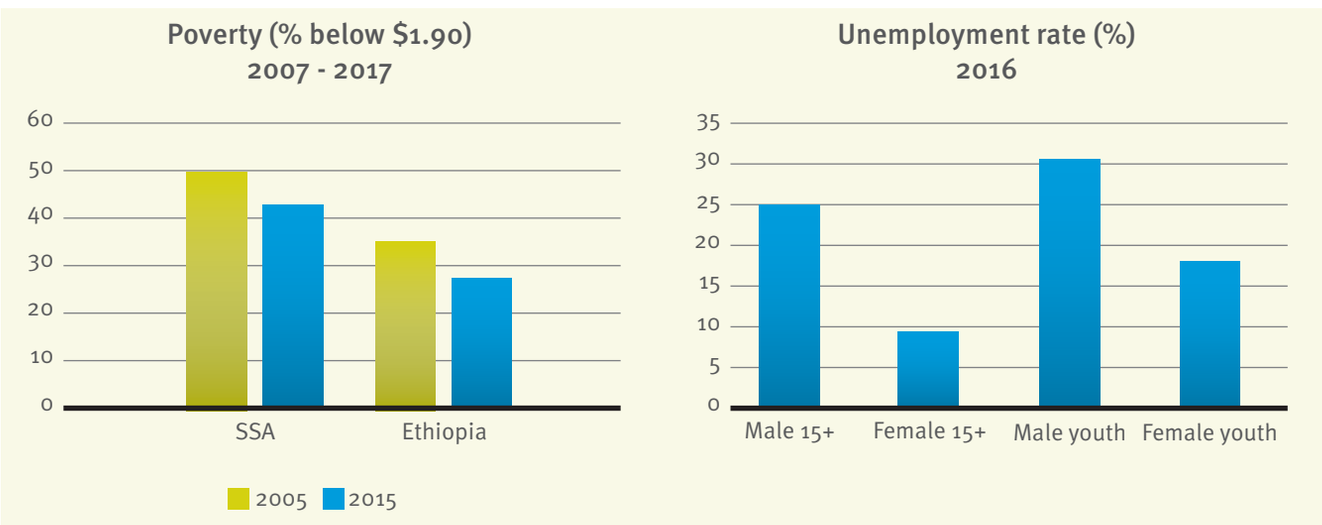
5 International Labour Organization, 2018. Key Indicators of the Labor Market, accessed September, 2018, https://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm.

6 International Monetary Fund, IMF, 2018. Staff Report for the 2017 Article IV Consultation, IMF Country Report 18/18.

7 "Abiy Ahmed: Ethiopia's prime minister", https://www.bbc.com/news/world-africa-43567007, published September 14, 2018,

Fast-paced change towards more inclusive growth is needed to improve welfare. Much higher growth rates than the rest of Sub-Saharan Africa have not paid off in terms of significantly faster poverty reduction. In 2015, more than one in four Ethiopians - over 25 million people - still lived on less than $1.90 per day (Figure 2, a). Given the failure of the current growth model to deliver significant and widespread improvements, policies towards more inclusive growth are needed. High rates of job creation, providing productive job opportunities, are a critical mechanism to translate growth into poverty reduction.[8] Unemployment rates are high (Figure 2, b). Poverty is higher for those working in poor quality employment (informal sector, self-employment) or are unemployed (especially in larger cities like Addis Ababa, where poor households are more likely than non-poor households to have an unemployed family member).[9] Fostering access to better job opportunities must therefore be part and parcel of Ethiopia's development strategy. The high unemployment rates among urban youth are worrisome, as the economic, social and often political costs of large groups of jobless youth are well-documented. [10]

Figure 2: Poverty and unemployment in Ethiopia



Low skills are a significant bottleneck for the modernization and structural change of the Ethiopian economy. Access to education remains limited. Notwithstanding improvements in enrolment in basic education, gross enrolment rates fall precipitously after primary levels (grades 1-8). Among students who begin primary school, less than half reach grade 5.[11] Children from poor households, and especially girls, are less likely than others to finish primary or secondary school. In National Learning Assessments, significant gaps remain between targeted and actual outcomes, pointing to problems of quality, not only access, in the education systems.[12]

Because of low schooling achievements in the past, the adult population has low skill levels in Ethiopia. Even in urban areas, only two in five adults have more than primary education (Figure 3). Unfortunately, no recent information is available on key indicators like literacy: in 2007 (the latest year for which data are available), more than half of women aged 15-24 were illiterate. These low skill levels constitute a drag on Ethiopia's capacity to move towards a more modern production and employment structure.

8 World Bank, 2012, World Development Report 2013: Jobs, World Bank, Washington, DC.

9 World Bank, 2015, Ethiopia Poverty Assessment 2014, World Bank, Washington, DC.

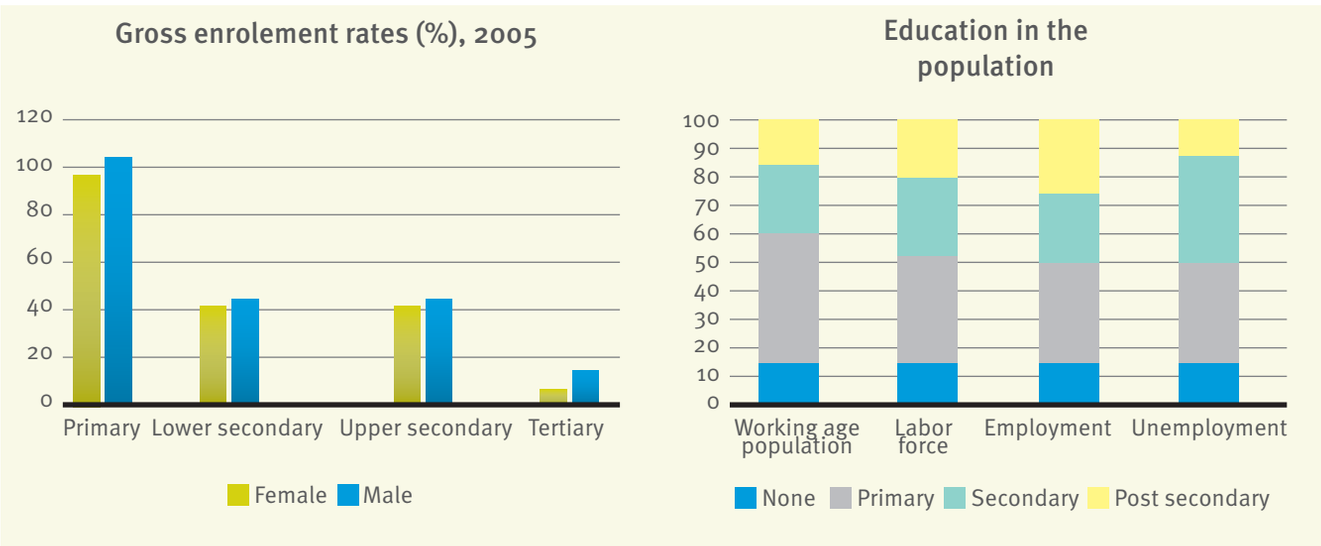
10 World Bank, 2012, op. cit.

11 Government of Ethiopia (2015), *Education Sector Development Programme V (ESDP V), Programme Action Plan*

12 Ibid.

The technical and vocational training system has been expanded significantly. TVET nonetheless remains a less popular option for youth and is seen as a fallback option for those with lower academic capabilities. In spite of the significant need for mid-level, market relevant skills in the industry and services sector, the relevance and quality of TVET training is held back by lack of funding which in turn throttles access to upgraded technology and equipment, perpetuates lack of connection with the private sector, and leads to a shortage of qualified teachers.[13]

Figure 3: Education indicators



13 Ibid

Lessons learned from the HDECoVA project

Project basics

The HDECoVA project, based in Addis Ababa, Ethiopia, is a joint public-private development partnership between Volvo, Selam Technical and Vocational College (an NGO-based school), the Ministry of Education in Ethiopia, and Sida. For Sida and UNIDO, it was the second such project, similar to a collaboration between Scania, Sida, UNIDO and the Ministry of Labor and Social Affairs in Kurdistan, Iraq. The HDECoVA project began in 2012, with a budget of just over 5 million USD. The bulk of funding was provided by Sida and Volvo in equal shares, the latter mostly as in-kind contributions.

The project had three over-riding objectives:

> (i) provide underprivileged youths with skills that will enable them to escape poverty and secure long-term sustainable income.
>
> (ii) help strengthen vocational training focused on modern sector formal employment and thereby respond to an unmet demand for skilled technicians which are playing key roles in the economic transformation in Ethiopia and in the region.
>
> (iii) engage a major multinational company in the active provision of human resource development outside its own organization, thus leveraging funds for development through new forms of cooperation between a supplier of vocational training and the business sector.

The desired outcomes defined in the project proposal were that trainees graduating from the Academy obtain employment within a year of graduation and that the project trigger institutional change in the vocational training system in Ethiopia. In the sense of a stronger performance-oriented culture and better adjustment to changing labour market demands.

The project was thus expected to help promote a model demonstrating new solutions to the existing weaknesses in the Ethiopian TVET system.

Project evaluation

All partners involved (Volvo, UNIDO, Sida, Selam, the Government of Ethiopia) consider the project a success in its own right, as well as an organizational learning experience for future activities. The Academy has an excellent reputation among prospective students, witnessed in the high number of applications (300+) each year. The reputation among local private sector partners is also very good, and the project is well known within the Volvo company.

A final evaluation of the project was undertaken in early 2018.[14] It concluded that the project outcomes were satisfactory. The project was considered very relevant in its design, well implemented, and effective in achieving two

14 UNIDO, 2018, Op. Cit.

of its three objectives, namely providing unprivileged youth with jobs in sectors with skills gaps and collaborating with a multinational company to achieve development objectives. With respect to these two objectives, the project's main implementation challenges related to a lack of planning for the Academy's financial sustainability beyond project closure, and the difficulties with high teacher turnover (trained instructors leave for private sector work.) A business plan is now in place, and teachers' compensation has been adjusted to motivate them to stay on.

The objective of systemic change in the TVET system — which was added on after the project had been initiated — was considered only partially met. The final project evaluation recognizes that the late addition of this objective, without a corresponding addition of activities in the project result chain, made it difficult to achieve. At the same time, catalyzing systemic change is indeed an important objective of these pilot projects, and partly what drives their rather high investment costs and costs per beneficiary. The section below discusses more in detail the achievements of the HDECoVA development objectives from a social, economic and institutional perspective.

Social, economic and institutional impact

To what extent has the project helped disadvantaged youth, including women, increase their employability through skills development?

The Academy has successfully equipped young people with skills to find jobs. Based on GoProve data[15], out of the 2012-13 batch, 16 out of 17 traced students are employed, and out of the 2013-2014 batch, 16 out of 20 traced students are employed, three of them part-time (Table 1). This suggests high employability of those traced (97% and 73%, if part-time work is counted as half a job). There are nonetheless two caveats to the employment outcomes. First, graduates who could not be traced may have a lower likelihood of employment: they cannot be traced among the school's private sector partners, and unemployed persons may be more unwilling to discuss their current situation. Second, the share of employed students is lower in the second than in the first batch. It is not yet possible to say whether this a one-off dip or a trend. The first batch was absorbed largely by EBG, and overall three companies: Abeba Transport, Derba Transport, and EBG, account for most of the employment of former graduates from the two batches surveyed. The question arises whether these employment opportunities are now saturated. Given the documented demand for qualified personnel in the transport sector there is no reason to believe that skills gaps have been filled. The school may have to be very active in reaching out to a wider circle of private sector firms, however, to keep up the positive employment results.

Table 1: Employment outcomes

	2012 batch	2013 batch
All students	27	37
Missing (not traced)	10	17
Traced	17	20
Employed	16.5	14.5
Full-time	16	13
Part-time	1	3
Employment traced	97%	73%

Source: Goprove data, as reported in the final project evaluation.

15 The project monitoring and evaluation (M&E) system for student data relies significantly on the GoProve software, which is now being replaced. Because of this transition in M&E systems, student data were not readily available. The information on employment of different batches is taken from the Evaluation report.

A little less than one third of students come from underprivileged backgrounds. The importance of allocating development resources to underprivileged youth, often an important donor criterion, is partly at odds with the need for financial sustainability (ability to charge tuition) and the entry requirements for high-level technical training (completed senior secondary levels or above). HDECoVA's tuition fee, at 2000 birrs per trimester, is equivalent to just under 20 percent of Ethiopia's average GDP per capita in 2018. Nearly one third of the students enrolled are considered underprivileged and receive scholarships for tuition. Through Selam Children's Village, underprivileged participants (orphans) with high school diplomas may enter the program. In Ethiopia, as seen above, enrolment rates in post-primary education remain low and so children from significantly unprivileged families are not likely to still be in school at senior secondary levels. The Selam students may be considered a special case, in this sense as they have been accompanied by the Village through high-school. Strategies to reach out to underprivileged students with sufficient qualifications, especially if the project is replicated in poorer regions, are needed.

The Academy has developed a best practice approach to involving women in a male-dominated occupation. Gender pay gaps are partly due to occupational segregation — women work in less profitable occupations and sectors — and encouraging them to enter non-traditional jobs can hence help them increase life-long earnings. As result of savvy marketing of a role model (a female student) through social media, recruitment of female students increased significantly with the third batch of students in the Academy. Women make up 40 percent of the student intake in the 2014-2016 batches. This is a strong achievement and compares very well with Sweden, for example, where 19 percent of students accepted into vehicle and transport TVET in 2018 were women.[16] In-depth individual interviews with female students at Selam, undertaken by the World Bank's Gender Innovation Lab, showed that the choice

16 Statistics from Swedish National Agency for Education, www.skolverket.se.

to "cross-over" into a male dominated trade is influenced by role models, familiarity with the profession through family and friends, future prospects and personal interests.[17] The interviews confirm the findings from other studies which show that women's career choices can be influenced with adequate information on income opportunities, also in countries with strong occupational segregation and traditional views on family responsibilities.[18]

Since the vast majority of female students are still in school, there is not yet information on employment outcomes for females. [19] In a group discussion with female students in their second and third year at HDECoVA, students expressed satisfaction with the courses. The one female student who had undertaken cooperative training, was happy with the experience. Instructors and students agreed that in large workshops with modern equipment, women are not at a disadvantage as great physical strength is not necessary. This suggests women may be better placed in larger firms than in smaller and underequipped establishments.

The key factors in ensuring employability of students has been (i) the quality and relevance of curriculum and instruction, due to the participation of Volvo (ii) the well-functioning system of cooperative training, which has ensured continued relevance of training and has connected students with potential employers.

To what extent has the project helped relieve skills constraints in key sectors?

The transport sector is critical to Ethiopia's economic development, and as such a key sector. Beyond the economic impact, the security, effectiveness, and environmental impact of transport systems impacts the daily lives of people (especially those who are poor) commuting to school and work.

On a macro-scale, 30-40 graduates per year cannot be expected to reduce skills gaps in an economy with over 6 million people in the services sector alone, and some 400,000 employees in the transport sector.[20]

Evaluating skills gaps at the project scale, students have clearly developed the relevant skills, however. This is visible in high employability, appreciation by enterprises involved in cooperative training, and appreciation by employers. As discussed, a majority of students traced are working in EBG (the local Volvo dealer) or two transport companies, Abeba Transport and Derba Transport. A review of the employment outcomes shows that virtually all employed are active within the field of their training. The transport sector is and will remain key to the Ethiopian economy, and the relevance of training to the economy is, as such, high. Private sector representatives (Volvo, EBG) can testify to the high demand for well-trained mechanics. **The high employability of graduates and good standing of the Academy in the private sector suggests that the model provides highly relevant competences for the Ethiopian private sector and, if scaled up, could help reduce skills gaps significantly.**

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17 Buehren, N., T. Van Salisbury, 2017. Female Enrollment in Male-Dominated Vocational Training Courses: Preferences and Prospects. World Bank, Washington, DC.

18 Campos, F., M. Frese, M. Goldstein, L. Iacovone, H. Johnson, D.J. McKenzie and M Mensmann, 2017. Personality vs. Practices in the Making of an Entrepreneur: Experimental Evidence from Togo Draft paper for the 2017 CSAE. Available at: https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=CSAE2017&paper_id=493; Campos, F., M. Goldstein, L. McGorman, AM Munoz Boudet and O. Pimhidzai, 2011. Breaking the Metal Ceiling: Female entrepreneurs who succeed in male-dominated sectors in Uganda. WBPR Working paper 7503, the World Bank; and Alibhai, S., N. Buehren, S. Papineni, 2015. Female Entrepreneurs Who Succeed in Male-Dominated Sectors in Ethiopia. Gender Innovation Lab Policy Brief; No. 12.

19 The one female student who entered in the Academy in its first year found employment immediately and has now returned to the school as an instructor.

20 Employment data refer to a labour force survey from 2013 and are from the World Bank (2015).

To what extent has the project influenced TVET policy, development cooperation, and private sector engagement in Ethiopia?

The project's social and economic achievements indicate its strong potential to serve as a model and inspiration for similar engagements. Among key stakeholders (Volvo, UNIDO, and Sida) the approach has been replicated in various settings (Table 2). Whereas the new projects are evidence of the good reputation of HDECoVA, they cannot really be considered a catalytic effect in that they largely involve the same private sector partner and/or a generous level of donor financing. More specifically, the project has so far not achieved strong systemic effects in Ethiopia.

For the Volvo Group, the HDECoVA project (a first PPDP for Volvo) has had a significant institutional impact. It has resulted in new projects (Morocco, Zambia, Liberia, Kenya-Uganda) and collaborations with donors other than Sida (USAID, GIZ), again underscoring the project's attractiveness. More broadly, the mechanics school approach has been institutionalized within Volvo's CSR program, and the Volvo Group is planning to set up 10 vocational training programs in Africa in the coming years, in partnerships with development organizations and local schools. Institutionalization within the CSR functions, as been achieved by anchoring projects with Volvo management at the highest level and incorporating management in the governance structures of the schools. Also, Volvo has begun building up a stock of material for schools, using leftover equipment from different parts of the organization, so it can deliver quickly once a project is to take off. As noted, the project is reportedly well-known within the organization and endorsed at the highest level. With time, the value of the approach has also been seen further down in the operational hierarchy. Through the spreading of information about the project in local markets in Africa, impetus has also come from Volvo's local dealers, which in turn has provided good entry points to the different business areas and a motivation for engaging in these vocational trainings. **There could be value in sharing Volvo's experiences widely with multinational companies present in Ethiopia and with interest in shared value and competence strengthening.**

Table 2: Vocational training: Public-private partnerships after HDECoVA

Volvo	Sida	UNIDO
Driver training (Selam), Ethiopia, Sida/UNIDO	Driver training (Selam), Ethiopia, Volvo/UNIDO	Driver training, Ethiopia, Volvo/Sida
Mechanics training, Zambia, Sida/UNIDO	Mechanics training, Zambia, Volvo/UNIDO	Mechanics training, Zambia, Volvo/Sida
Mechanics training, Morocco, USAID/UNIDO		Mechanics training, Morocco, Volvo/ USAID
Planned: 10 schools in total (Liberia, Kenya-Uganda so far)		Mechanics training, Liberia, Kumatsu/Japanese Government

21 It should be pointed out that collaboration with GIZ is not likely from the perspective of cost-sharing, as GIZ and UNIDO operate in similar ways and to some extent compete for donor resources. However, GIZ and UNIDO could collaborate at a technical level, for example assist each other in mapping out actors in the local private sector, or analysis of ongoing donor funded interventions, and exchange of experiences.

However, the project has had little success in achieving catalytic change in the local TVET system by providing an example of innovative financial, organizational and technological solutions. The project has garnered interest from the Government, the private sector, public and private TVET providers, and donors (GIZ, World Bank).[21] No far-reaching actions have resulted from this interest so far. It is possible that time, as well as timing, is an issue. Although the project is well-known it is only now coming to an end, and achieving structural change in TVET systems is a long-term and likely slow process. The timing, more particularly the current political transition, may also have delayed the possibilities to move ahead with more concrete actions.

The project team has made several relevant outreach efforts. With respect to the TVET system, the project team has actively engaged with MoE/FTVET and achieved endorsement at a high (State Minster) level. The project team has also engaged with other TVET schools in Ethiopia. In May 2017, a workshop was organized with 13 TVET college deans (from both Addis Ababa and regions), FTVET, and the Addis Ababa TVET Agency, in order to devise a joint action plan for how to adopt the good practices of HDECoVA in other schools. Other schools do show significant interest in HDECoVA, but so far this has centered on adopting the workshop lay-out, copying the curriculum, and sending instructors to HDECoVA for "training of trainers". A visit by the team to a TVET College suggested that steps to actively look for sustainable private sector partnerships have not been taken even by one of the more proactive schools that has shown interest in the model (Box 1).

Box 1: Nefas Silk TVET College

The team visited the Nefas Silk TVET School in Addis Ababa, a TVET school which has several strong points from the perspective of a private-public partnership. First, it is located in an industrial zone in Addis Ababa, and as such would likely have good opportunities to forge relationships with local firms for both equipment, training and internships. Second, it has received significant investments in infrastructure from the government budget: for example, a very large, newly built automotive workshop. The workshop has no equipment for training, however. Third, school management has been manifestly interested in in the experiences of HDECoVA. The school is in discussions with GIZ to receive support for equipment for training. Discussions at the premises nonetheless showed that there is no clear strategy to approach the private sector. The school is counting on GIZ to provide equipment as well as connections to the private sector.

Summary of lessons learned

The experience of HDECoVA shows that:

PPDPs can work very well in vocational training — participating organizations can learn, grow and change with these collaborations. This has been the case with Volvo (where the project can be said to have influenced the global CSR strategy), Selam (which is now in a second collaboration with a multinational company), Sida's continued engagement (in Zambia and Ethiopia), and UNIDO (which has developed several learning tools as a result from HDECoVA).

Private sector partners are central to the HDECoVA model. In HDECoVA, as in other PPDPs, a multinational firm is a major partner. They provide the technical input and ensure relevance of training. The local private sector also provides input, receives students for cooperative training, and employs graduates. In the context of replicating the model within a country where it already exists, it may be unlikely that one local firm can step in to fill the role of a multinational partner because of limited capacity in the local private sector. To engage the local private sector, it may be necessary to work with a group of private sector firms that share a common interest in skills development. This will require some capacity building, however, including assistance to private firms in organizing themselves and developing a joint agenda.

Context matters. PPDPs are likely to succeed better in a high growth environment. Unlike for example the Swedish Academy for Training in Iraq (SAT), a PPDP between Scania, Sida and the Kurdistan Government, HDECoVA has operated in a context with continued demand for qualified workers and has been able to maintain its core activity: mechanics training for youth. On the other hand. At the same time the current political transition in Ethiopia makes it difficult to identify government counterparts until ministries and agencies have been reorganized. (The dust is expected to settle in the coming months.)

PPDP Projects are human resource intensive and require a range of different capabilities. To manage a PPDP it is necessary to be able to understand, work with, and merge, the diverse cultures of government, international organizations, and the private sector. This requires very broad capacity in the implementing institution, in this case UNIDO: assist the partner school in the management of day-to-day operations, manage project (procurement, reporting…), develop and implement a business plan, including through financing from other donors, and liaise with the private sector, government and donors to prepare for scale-up.

Financial sustainability must be ensured from the outset. This is particularly the case for private organizations/ NGOs for which operations are scaled up through projects and which need to be able to cover higher operating costs, scholarships, and regular upgrading of equipment. An important reason for low quality of TVET is lack of government funding. Resource-constrained governments are not likely to be able or willing to absorb additional expenses after project funding ends. HDECoVA's business plan is a good example how to innovatively cover expenses by providing commercial services. However, in many countries, public TVET schools are not allowed to generate independent income streams. This is a significant drawback in terms of replication.

Donor funding is warranted. Donor presence provides a guarantee for risk sharing for private sector partners. This has been the case in several PPDPs this author has looked at (HDECoVA, Zamita, SAT). Donors provide the link into Government structures and share the reputational risk. Donors have the know-how regarding development interventions and how to more effectively increase the poverty-reducing impact of interventions on the community at large. The private sector, especially foreign enterprises, are often wary of dealing directly with local public institutions without an intermediary. Some measure of donor participation is therefore still needed until the business climate and overall governance environment improves.

The choice between public TVET partner and NGO entails a trade-off between within-project efficiency and systemic change. Selam has been a strong and driving partner in the establishment of HDECoVA and has adopted business-like principles in management of the Academy. The influence of Swiss traditions in terms of dual TVET systems and cooperative training has likely facilitated the communication and implementation of the project. Given that HDECoVA was the first project in its kind for Volvo, the Academy could likely not have been placed in a public sector partner TVET school, as it would have been considered too risky to depend on the less effective governance structures of public TVET institutions. As a result of the NGO partnership, the project has thus existed in some isolation from the TVET system it is intended to influence, however. At the same time, the experience from the Zamita in Zambia and the Swedish Academy of Training in Iraq shows that a strong and productive relationship can be forged with public school partners. Nonetheless, systemic change has been slow in the the SAT and Zamita cases as well, which demonstrates that systemic change does not automatically follow from collaborations with a public school partner, either.

High teacher turnover is an endemic problem in skills upgrading projects in countries with significant skill gaps in the private sector. It remains a problem even in HDECoVA, where teachers' compensation has been adjusted and the teaching environment is well above average (well functioning and advanced equipment, high motivation among students, opportunities for continuous skills upgrading, etc.). Teachers compensation and motivations need to be factored into operational costs and human resources management. One additional possibility to explore is contractual arrangements that stipulating that if teachers benefit from skills upgrading through the project, they must stay on their current position for a certain time or face a penalty, although it may be difficult to reinforce this in practice.

Scaling up the HDECoVA

HDECoVA shows positive outcomes in terms of addressing skills gaps and increasing the employability of youth. This section looks at the strengths and potential weaknesses of the model, both from a general PPDP perspective, and more specifically for HDECoVA. The LKDF has, by now, amassed a significant knowledge base on PPDPs, by analyzing approaches and issues in different PPDPs at a general level.

As seen, PPDPs work best in a favourable economic environment, where the demand for modern skills is high due to expansion of business opportunities in specific sectors. They are easier to successfully roll out when the initiative comes from the private sector, and are therefore largely opportunity-driven and context-specific.

What are the specificities of the HDECoVA/PPDP model?

The PPDP model, exemplified by HDECoVA, has several strengths from a development perspective. It is potentially well-suited to enhance productivity and employment in sectors experiencing skills gaps in developing countries. The table below compares the PPDP with two more conventional project approaches: traditional support to a specific school (or a specific set of schools), typically through capacity building, infrastructure upgrading, curriculum revisions and training of trainers, and ad-hoc formal or non-formal vocational training for specific groups, often those facing difficulties in entering labour markets.

The review highlights several of the strengths of PPDPs compared to the two other types of projects PPDPs leverage private resources for development, consistent with the 2013 Lima-declaration from, which sets forth UNIDO's development priorities. PPDPs projects also have a strong link with private sector demand, because of

the involvement of the private sector often firms with substantial technology know-how and established in-house training systems. The involvement of a private sector partner with a strong technical reputation (ongoing PPDPs all involve one multinational firm) makes participation attractive for other firms as well.

Given the market relevance and high quality of training, training institutions can piggy-back on equipment and training of trainers and provide market relevant services to private companies, thereby strengthening long term financial and institutional sustainability. This high labour market relevance is, at least in higher growth sectors and economies, also key to ensuring that students can find jobs afterwards. None of these aspects are guaranteed in the other two types of models, but require that project design include labour market surveys, internship programs, etc.

At the same time, PPDPs are complex projects because of the different nature of key partners. It is a key strength of the PPDPs that they bring the stakeholders-private sector, government, schools, donors – to the same table, but this also means that the projects as such are complex to manage, with different processes, expectations, and a significant learning process. These projects are also more likely to depend on high growth context (such as Ethiopia). Private sector partners are interested in areas and sectors where, over time, they will be able to invest. Moreover, PPDP's aim to close identified skills gaps. In an economy where demand for workers is weak due to very low private sector activity, there is not really a skills gap even if the level of competence overall is weak.

The ability of PPDPs in vocational training to reach excluded groups is quite limited, at least in their current form, and requires specific mechanisms such as scholarships and targeted outreach activities, to draw in vulnerable youth. Moreover, the minimum requirement for formal vocational training at secondary level can, at least in low income countries, act as a barrier for school drop-outs coming from poorer backgrounds. Ad-hoc training programs that explicitly target hard-to-reach groups (e.g. poor, low skill youth), are better designed to serving them.

Table 3: Supporting vocational training: PPDP, direct support, ad-hoc training programs

TYPE OF PROJECT AREAS	PPDP	DIRECT SUPPORT TO EXISTING (FORMAL) TVET SCHOOL (INFRASTRUCTURE, CURRICULUM, ETC.)	AD-HOC FORMAL OR NON-FORMAL VOCATIONAL TRAINING PROGRAMS FOR SPECIFIC GROUPS
FINANCING	Leveraging private funding	Donor/Government (School)	Donor (usually)
RISK SHARING	Shared between private sector, donor and school	Donor/Government (School)	Donor, implementor
COMPLEXITY	High: Objectives partially overlapping but not identical, different organizational cultures need to be coordinated.	Medium: Coordination between donor and government.	Medium, but depends on design: Can be more complex if private sector involved (will also likely increase success level).
QUALITY AND RELEVANCE OF TRAINING (actual and reputational)	Leveraging private sector know-how Quality guaranteed by private sector partner, hence up-to-date and labour market-relevant: Participation of high-tech private sector partner increases trust in quality of training (students, employers)	Depends on project design and access to technology, not guaranteed	Depends on project objectives, project design and access to technology, but not guaranteed: Often motivated by low employability of target group, not labor market demand
SUSTAINABILITY	Not guaranteed but possible through business plan, at least for private training providers that can provide market services using high technology training and equipment	Not guaranteed, at least in public schools	Often temporary projects by design
INVOLVEMENT OF LOCAL PRIVATE SECTOR	Project design directly invites involvement of local private sector for curriculum development and internships Private sector often shows interest because of the participation of a large multinational firm.	Depends on project design, outreach efforts, whether internships are included in curricula	Depends on project design, outreach efforts, whether internships are included in curricula
EMPLOYMENT OUTCOMES	Depends on project preparation (labour demand surveys, analysis of economic situation) but expected to be good: as local private sector should be involved: Projects should address skills gaps in high-growth sectors	Depends on project preparation (labour demand surveys, analysis of economic situation) and willingness of schools to focus on training addressing actual skills gaps in the economy	Depends on project preparation (labour demand surveys, analysis of economic situation) and ability to address multitude of constraints faced by excluded group
APPLICABILITY IN LOW-GROWTH CONTEXT	Low: private sector partners likely to be interested in growth sectors/countries	Medium: can focus on capacity building to increase relevance and quality of training but employment outcomes uncertain	Medium: can increase the employability of specific groups including at low skill levels and in informal sectors where demand exists even in low growth context
REACHING MARGINAL GROUPS	Requires specific actions to reach excluded groups who often do not have the education levels to qualify for advanced technical training	Requires specific actions to reach excluded groups who often do not have the education levels to qualify for advanced technical training	Project design directly targets specific groups.

Is HDECoVA replicable?

As discussed above and shown in Table 2, the PPDP model represented by HDECoVA is replicable. Indeed, several PPDP projects in vocational training, in technical occupations, have been undertaken involving new partners for UNIDO, Sida and Volvo. This take-up is due to the strong HDECoVA outcomes in terms of technical level and employment creation for youth, and the interest from both donors and the private sector.

Specific features of the HDECoVA project design contribute to its effectiveness and need to be considered if the project is to be further replicated. These include excellent design features that are replicable in other projects, as well as a few elements of good fortune that are highly desirable but not necessarily replicable.

Replicable features

• **Training in modern techniques in a growth sector, anchored in documented skills demand**. The transport sector is an important services sector with strong links to the government strategy of geographically broad-based industrialization and export promotion in a large and land locked country. Although demand for transport services is linked to economic growth, demand for workers and skills may be more stable over time than in sectors that depend entirely on international demand or prices (such as mining). This is replicable in as much as a PPDP should not be undertaken unless there is a documented skills gap and projected medium-to-long-term stable demand for workers.

• **A strong partnership with the modern private sector.** The public-private partnership with Volvo is the backbone of HDECoVA. Through the project, a multinational firm representing modern technology has been engaged. Drawing on its established in-house competence development scheme, Volvo is willing to provide modern equipment and training of trainers as a public good. Their involvement guarantees actual and reputational value of the training, and guaranteed interest from the local Ethiopian firms.

• **Strong links with the local private sector.** Local firms, which are potential employers and beneficiaries of the project, were identified through a demand analysis prior to start-up. They have participated in the development of the curriculum. An MoU has been signed with a set of firms that are involved in cooperative training.

• **High-quality cooperative training.** Internships (cooperative training) are essential to the quality of instruction at the Academy. The HDECoVA set-up ensures high quality cooperative training. Firms commit to following a specific protocol for training and guarantee exposure to work on certain modules in line with prior in-class training. For each student, a school instructor communicates with a specifically assigned in-company supervisor, ensuring feed-back both on individual student performance and on the training approach more generally. Anecdotal evidence suggests that many students have found employment with firms where they did their cooperative training, receiving job offers even prior to their graduation.

• **Best practice-approach to recruiting female students.** The Academy has successfully relied on cost-effective social media marketing in presenting a female role model (the only female student from the 2012 batch). This involved reaching out to girls, including their families and communities.

• **Sustainable business plan.** Although measures to ensure sustainability were missing at the outset, the Academy has now developed a promising business plan, focusing on different revenue streams that can cover operational costs: short-term training for workers wishing to upgrade their skills, tailored in-company training, and maintenance work at the school. The Academy is now financially sustainable.

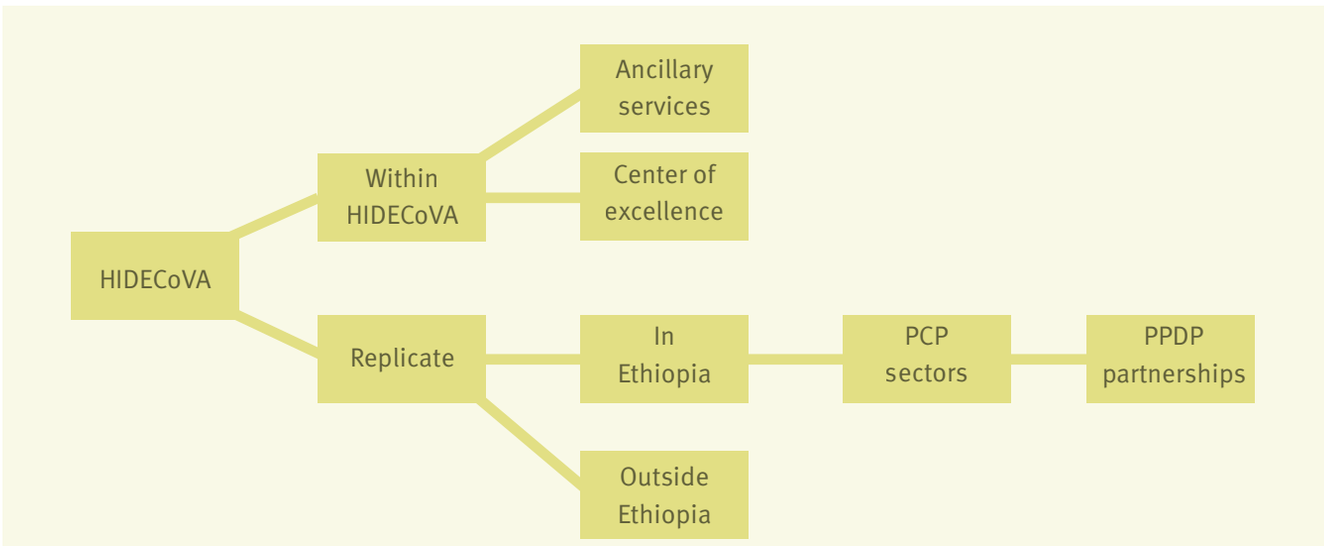
Not automatically replicable

- **Exceptionally favourable economic context, resulting in high labour demand.** Ethiopia's recent exceptional track record in terms of economic growth and job creation without parallel in Africa. The high-growth context provides favourable conditions for well-targeted training directly at skills shortages in growth sectors. It also draws in private investment, and as such potential PPDP partners.

- A well-respected partner school. SDR-TVC is well known in Addis Ababa and has a good reputation for providing practical and high-quality training. Management has been highly engaged in the project from the outset and was instrumental in bringing it about. As an NGO, the school is independent from government procurement systems and regulations for teachers' compensation. A school providing high quality training as well as management with a modern mind-set is not necessarily available in all settings.

The opportunities for scaling up to achieve systemic change through new projects are explored below. "Scaling up" can refer to both a replication of the model in other sectors, schools and countries, and to an extension of the project itself to a larger scale. The discussion below considers two lines of expansion. First, a scaling up within the HDECoVA, largely a modification of the modus operandi which in itself can serve as a model for other projects. Second, replication with a new set of public and private partners. Figure 4 below summarizes the options considered; the options outside Ethiopia (light blue) will not be considered here.

Figure 4: Decision tree for scaling up



Expanding HDECoVA's services

Ancillary services to strengthen impact

Modifications of the Academy's approach could include adding ancillary services to assist transition into labour markets. For wage employment (in established formal firms), the cooperative training appears to function well as a link between students and employers. Providing more services to help students find employment would appear redundant.[22] Another option is to extend entrepreneurship training and services to graduates. Elsewhere, UNIDO has launched a successful youth entrepreneurship program –the Inclusive Development and Entrepreneurship for All (IDEA) Program –which is based on skills development, coaching and mentorship as well as forging networks

and links with private sector (firms and business associations), training institutes, financial institutions, business development services, etc.[23] The model has worked well in Senegal and Mali, and uses some cost-effective methods, including online tools. Running one's own business is considered an attractive option, as was clear from discussions with female students in HDECoVA. However, in the case of HDECoVA, the IDEA approach does not appear to be a good fit, for several reasons:

Is it needed? There is demand for labour in the formal transport sector – indeed, this assumption underpins the HDECoVA project. Young people leaving the academy should have no trouble finding a position as an employee as a first entry into the labour market. Assisting youth enter into self-employment for lack of job opportunities elsewhere is not needed, per se.

Is it realistic? Establishing a garage – especially for serving modern trucks and heavy-duty equipment in accordance with the training provided in HDECoVA– implies significant investment, well beyond the capacity of microfinance institutions. The IDEA program would have to be highly selective in terms of whom to support with coaching in order to approach larger financial institutions. In addition, students are likely to need work experience before opening up their own workshop.

How will it affect industry skill gaps? If there are skills gaps in the existing firms, and students choose to open their own instead of becoming employees, incumbent firms will either have to close down (giving way to the new young crowd) or outsource their maintenance work to the self-employed youth.

These considerations suggest that what appears to be an interesting but resource intensive entrepreneurship program like IDEA is not suited to the Academy or similar projects focusing on training for employment in the modern industrial or services sector. If the Academy wants to support entrepreneurship, a light version with a focus more on "life skills" (financial literacy, basic business management, budgeting) would seem more appropriate. Such a module is useful for all students and could serve as a basis for students who, after some years of working as employees want to open a business.

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22 In discussions with female students, several of them envisaged finding employment, gaining experience, and then opening up their own garage. The preference for future self-employment may reflect the impact of a recent lecture given by a women manager in the transport sector to the students.

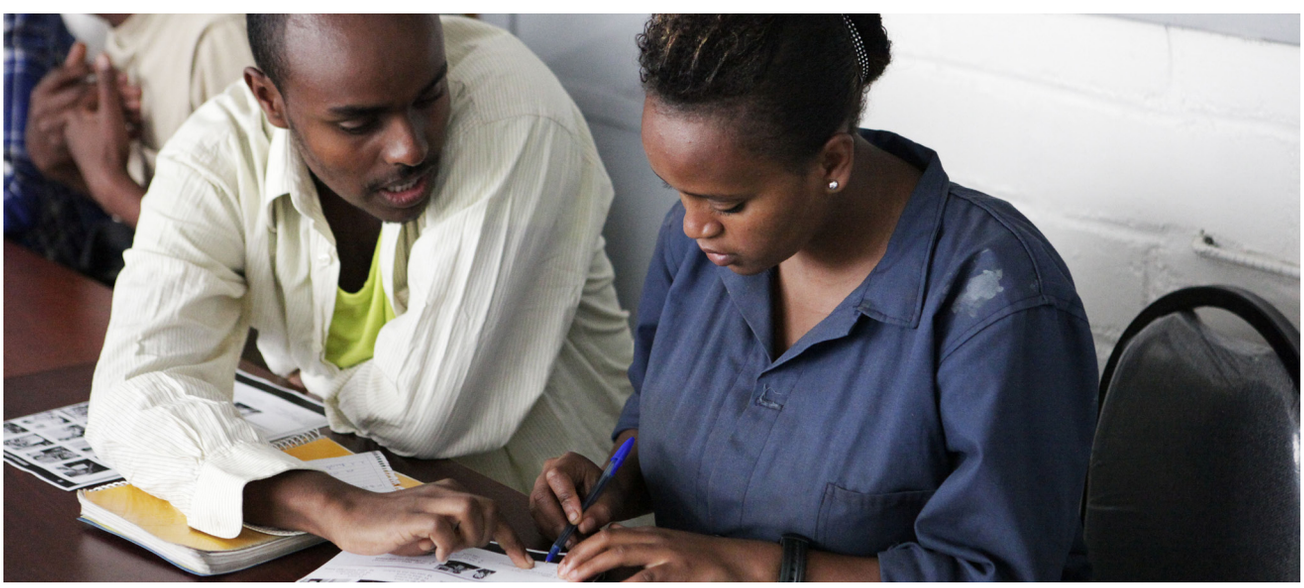
23 UNIDO, 2018b, Inclusive Development and Entrepreneurship for All: The IDEA Approach to Youth Employment and Enterprise Development, UNIDO inclusive and sustainable industrial development (ISID) working paper series No. 2. UNIDO/LKDF, Vienna.

24 In Senegal, for example, the industries supported included shoemakers, fishermen, recycling, and "green industry". The shoemakers' cluster was united over 500 shoemakers, who generated joint funding of just under EUR1 million, or 2000 per person. These are very small sums compared to the investments needed for HDECoVA-relevant workshop. Source: UNIDO (2018b), op. cit.

Center of excellence: Training of trainers

Another option for expanding HDECoVA is to transform it into a Center for Training of Trainers (ToT), where trainers from other institutions receive skills upgrading. This could be considered a "replication light", a way to achieve systemic changes by utilizing existing resources rather than forging new relationships. For the time being, this is how the objective of systemic change is being addressed in HDECoVA. As activities related to systemic change, the HDECoVA project includes training of trainers from public schools who have shown interest in the model, training and graduation of trainers at the polytechnic level, and capacity building/technical assistance in setting up well-functioning cooperative training systems. At the moment, there is significant pressure on the Academy to provide more such training.

Additional training takes up significant resources from the Academy, at a time when teachers and resources are scarce, and is also drawing time from project and school management. The ToT comes on top of the student training and the training and maintenance services undertaken to build up financial viability. Simply adding on ToT to the Academy's current duties without financial compensation, drains the Academy of capacity.



Free skills upgrading for other schools is not sufficient to provide systemic change. In fact, it removes the pressure for other schools to identify new partnerships and modalities of operations for producing these skills, which undermines the idea of HDECoVA replication. Fee-based training would be a possible solution that would at least allow for proper costing of the training.

Even with fee-based ToT, however, the value of providing skills upgrading to teachers in other schools must be considered in light of these schools' overall approach. As noted above, the HDECoVA model offers a package of benefits: teachers with up-to-date knowledge, a modern curriculum, up-to-date equipment and workshops, and strong links to potential employers. Its strength lies not primarily in the technology upgrades it has received, in the sense that such technology will also eventually become outdated, but in the collaborative way in which it involves the private sector. Even if the Academy shares the curriculum and provides ToT, other elements are likely missing in other TVET institutions, with two implications. First, there is little value in upgrading teachers if their students will not have the material needed or if cooperative training schemes are not in place. Second, teacher turnover remains a problem in HDECoVA, dispite access to a modern and well-equipped workshop and to skills upgrading, as well as some financial compensation. In other TVET schools, these motivational benefits are not available, which would appear to substantially increase the risk of teacher attrition.

To reap the benefits of teacher upgrading, the Academy would need to enter agreements only with schools that have taken concrete steps towards working with the local private sector, acquiring adequate equipment and premises and establishing functional cooperative training. Specific criteria could be set up that specify these benchmarks, such as signed MoUs with firms, and inventory of equipment. HDECoVA could encourage TVET colleges to in turn encourage the private sector to provide some equipment for training against future skills upgrading for their staff or similar arrangements.

Replicating HDECoVA

For a PPDP to have achieved systemic change, a change of behaviour within the TVET system must be observed. Schools should attempt to increase the relevance and quality of vocational training by adopting new approaches to mobilizing resources and measuring results, and to increasing the relevance of training, in particular through collaboration with the private sector.

Systemic change in the public sector is a long-term process, due to capacity and budget constraints. In the specific case of Ethiopia, it is slowed down by the ongoing political transition, as well as by the fact that the Academy has not generated experience from working with the public TVET system in Ethiopia. Establishing a project with another NGO, like Selam, may be successful but would have no significant pilot-testing value — as is the purpose of new PPDPs — because HDECoVA has already provided this pilot-testing experience. Moreover, it would not generate additional entries into the TVET system. It would probably make more sense for UNIDO to identify a public school partner.

Going forward, within Ethiopia, choices have to be made regarding sectors to focus on. UNIDO should, of course, be open to different opportunities if they appear, in Ethiopia and elsewhere. Experience shows that it is easier to get a PPDP off the ground when the initiative comes from a private sector partner. In the absence of impetus from the outside (through, for e.g., manifested interest in the PPDP model on the part of private firms in another sector in Ethiopia) which so far has not happened, UNIDO will need to take the lead. This, in turn, requires a strategy on how to identify interesting sectors and approach different stakeholders.

Sector mapping

A logical place to start in any country should be the industrial sectors targeted by UNIDO in respective country programs. These sectors should have been vetted for growth and job creation potential, comparative advantage of UNIDO, country-strategic priority, and transversal links with UNIDO's activities elsewhere, as well as for other donor programs and funding opportunities. A high-growth context is also important, so that skills gaps are a binding constraint to job creation.

Ethiopia is a pilot country for UNIDO's Programme for Country Partnership (PCP) — Senegal and Peru are also pilots. The ambitious programme embeds the targets from the Growth and Transformation Agenda, and aims to help pool resources, build synergies, and identify gaps. The Ethiopia PCP focuses on agro-industry, leather, and textile and apparel as target industrial sectors. Two other sectors of interest, transports, and renewable energy, are also discussed below.

Ethiopia's growth rate is expected to remain above 8 percent per year for the foreseeable future. The political transition, while increasing uncertainty over the short-term, is also likely to favour private investment over the medium- to long-term. These factors speak in favour of expanding PPDPs in Ethiopia. More PPDPs, in new sectors, would further increase the visibility of the PPDP approach and the importance of collaborations with the private sector for labour market relevant training.

Agro-industry

Ethiopia has land and favourable climatic conditions for agricultural production, and agribusiness accounts for the largest share of manufacturing goods. More than two thirds of Ethiopia's workforce are working in agriculture. Developing means of integrating these into productive value chains is important from a poverty perspective. However, lack of sufficient infrastructure (roads, electricity) and technology and skills gaps in both agriculture and manufacturing are important constraints on the collection and processing of agricultural produce. The Integrated Agro-Industrial Parks (IAIPs), UNIDO's main vehicle for collaboration with the Government in this sector, plan to incorporate vocational training, including in mechanical and electric engineering and food and consumer goods technology. This suggests strong opportunities for private sector involvement.

Textiles and apparel

The Ethiopia textiles sector has attracted significant foreign investment in recent years. Availability of cotton and the relatively low cost of labour at a time when production costs are increasing in Asia, has attracted large garment companies. Technology and skills gaps are nonetheless holding back investment opportunities. The PCP includes a focus on skills workforce upgrading and institutional capacity building. Given the interest from large apparel companies (Wal-Mart, Philip van Heusen, Jiang Lianfa Textile, Primark, Tesco, H&M, GAP, PVH, Velozity Apparelz Companies, Decathlon, AYKA, Asda, Tuskon, and more), there should be significant opportunities to find collaborators among large private companies or coalitions of companies.

Leather and leather products

Like textiles, Ethiopia's leather sector enjoys availability of raw material and a long tradition of tanning and leather manufacturing. Again, skills and technology gaps affect the potential of the sector. According to the Ethiopian Investment Commission, over 40 international investors have established production in Ethiopia in the leather and leather products sector. UNIDO is working on cluster development, within which PPDPs may fit well.

Transport sector

The transport sector continues to retain a critical role in the growth strategy which centers on decentralized industrialization and export promotion. Ethiopia depends on road transportation, and the transport sector's impact on the everyday life of the many millions using public transport or living nearly transport corridors is tremendous. Skills demand remains high, and the reputation of HDECoVA, which a new project would need to build on, is strongest within the transport sector.

Renewable energy

Ethiopia has an ambitious climate policy and plans for developing the power sector through hydropower, wind power and geothermal power production. These are sectors requiring heavy investment and technical know-how. Clean and renewable energy is central to the sustainable development agenda, a priority for many donors, and at the same time key to meeting energy requirements of industrial growth.

Donor mapping

Donor participation will very likely be needed to share financial and reputational risk. Although aid flows are not formally tied, it is possible that donors are more interested in funding companies with some connection to their own country[25] Table 4 below summarizes some key points to consider for important bilaterals and multilaterals. The Table is an indication of the kind of mapping that could be undertaken to approach donors with a good insight into what strategies and budgets are relevant. It needs to be complemented by an overview of concrete projects and partnership engagements for each donor. Again, the coordination mechanisms around the PCP and the Ethiopian Development Assistance Group, where UNIDO forms part of the private sector development technical group, should be important vehicles for coordination.

The mapping of donors will also help identify where similar projects are undertaken. For example, Germany/GIZ will be supporting refugee skills development in mechanics training through Nefas Silk College.

Table 4: Examples of donors in Ethiopia and their relevance for partnerships (PPDPs)

DONOR	PROGRAM	ADVANTAGES	DISADVANTAGES
DENMARK	Funding for the 2018-2022 strategy amounts to some 140 M Euros, or about 30M Euros per year: Danida's focus will be on green energy and resilience, economic opportunities in agriculture and livestock, governance, and migration management. The work on agricultural development clusters is budgeted at 50 M Euros in total.	Focus on agricultural development clusters, green energy: Strong focus on local job creation, strong interest in participation from Danish firms (priority in cooperation strategy).	No strong interface with UNIDO in Ethiopia to explore: No vocational training focus (although this is not necessary).
GERMANY	Little information available on budgets, but the STEP program (2015-2018) focusing on TVET and higher education encompasses 17 M Euros. Traditionally, Germany has a strong interest in vocational training programs and private sector collaborations.	Strong emphasis on Vocational Training.	GIZ has an overlapping role with UNIDO.
ITALY	Ethiopia is a priority country for Italy's development collaboration. Italy is providing 125 Million of Euros (2017-2019), using a multisectoral approach. Focus is on agricultural modernization and agro-industrial development; gender equality, regionally balanced growth. Also promoting local job creation to stem outmigration (to Italy), through the program "Stemming Irregular Migration from Northern and Central Ethiopia " (SINCE). Involved in TVET, upgrading four reference institutions in Ethiopia. Interested in promoting partnerships between the Italian private sector and Ethiopia, e.g. for durum wheat, involved in value chain development.	Significant private investment (links) in agro-industry and construction: Interested in vocational training: Large donor, interested in furthering private sector collaborations. Interface established with UNIDO through SINCE and through FAO/UNIDO feasibility study for agro-industry parks.	

25 This is not necessarily the case: H&M and DBL group (a Bangladeshi apparel exporting group) are teaming up with GIZ to support a vocational training centre in Mekelle for skilled workers and managers in the textile sector. The project is nonetheless linked to the creation of a textile fabric funded partly by Swedfund and a Sida-funded program on labour relations with H&M and ILO. https://www.swedfund.se/en/search/?search=HM%20textile

DONOR	PROGRAM	ADVANTAGES	DISADVANTAGES
NETHERLANDS	Dutch development cooperation focuses on its strengths, which include water management, food and agriculture: Gender, climate and entrepreneurship development are cross-cutting themes: The strategy is also focused on linking aid and trade, i.e. finding opportunities for Dutch companies. The budget for 2014-2017 amounted to 217 M Euros, about 70 M per year. More than half of this was allocated to the food security sector (including agro-industry). Support to the agri-business sector is tightly linked to investment by Dutch companies. Also supports sustainable development in cotton and textiles.	Proactively supports collaborations that promote Dutch investment: Interested in private sector collaborations.	No established interface with UNIDO in Ethiopia to explore: No vocational training focus.
NORWAY	Spending in Ethiopia reached about 50 M Euros in 2017 — 15 M to economic development and trade, 13 M to education (basic education) and 10 M to environment: Norad is supporting climate policy. Including the promotion of increased private sector involvement in the development of renewable energy: Norad is also supporting private sector initiatives in the fisheries sector.	Significant partner: Focus on private sector involvement and catalysing private investment: Strong on climate/renewable energy, interest in fisheries.	No established interface with UNIDO in Ethiopia to explore: No vocational training focus.
SWEDEN	is a small player in Ethiopia's development portfolio, but Ethiopia is significant in Sweden's aid portfolio. Moreover, the Swedish government has announced its intention to double aid to Ethiopia in the coming years: In 2017, sector support was concentrated in industrial development (8 M Euros), and private sector development (6 M Euros), with education accounting for just over 1 M Euro.	Strong institutional knowledge of PPDP. Scaling up support to Ethiopia. Swedish firms investing (H&M present, IKEA rumoured to be looking into establishment).	Already involved in the drivers' program with Volvo: Not likely to engage in further PPDPs in the transports sector: Already engaged in PPDPs with H&M together with ILO. Can possibly support other forms of scaling up. e.g. dialogue with public TVET sector.
UK	(DfiD) is a very important development partner in Ethiopia with a budget for 2018/19 of about 330 M Euros. The program aims at raising standards in education, family planning, water and sanitation, and economic development. DfiD supports the development of industrial parks, in line with the Ethiopian growth strategy, and is committed to supporting job creation and preventing migration.	Significant partner: Focus on economic development, job creation and investment. Focus on trade and investment links with UK (e.g. Diageo and Unilever have invested in Ethiopia).	No established interface with UNIDO in Ethiopia to explore, no vocational training focus.

DONOR	PROGRAM	ADVANTAGES	DISADVANTAGES
US	USAID is investing some 235 M USD in 2018, similar in 2019 programs. The share spent on education and private sector development is limited to about 8 M and 40 M USD respectively. Private sector development focuses on capacity building in private sector along value chains, business development services, financial services, and dialogue between private and public partners. USAID is involved in the agriculture and livestock sectors Work force development activity targets unemployed and underemployed youth in the Afar, Amhara, Oromia, SNNP, Somali and Tigray regions.	Significant presence in Ethiopia: Interest in workforce development and presence in agriculture, agri-business, and livestock production. Experience from UNIDO and PPDP in Morocco.	Budget cuts and uncertainty in US foreign policy priorities: Training initiatives focuses on unemployed or underemployed vulnerable youth, not students.
TURKEY, CHINA	No information on program volumes.	Significant presence as donors: Significant investment expected: Strong aid-trade links in development cooperation. Chinese government has shown interested in the PPDP model.	Less known about content of strategy, development policy, investment policy, views on CSR.
EU	Program with relevance for HDECoVA/PPDPs on agriculture, infrastructure, migration, gender (specifically vocational training, entrepreneurships skills): Agriculture is supported by 250 M Euros (2015-2020), roads are supported by 140 M Euros (2016-2020): Migration and resilience building, approximately planned: 200 M Euros in total. More generally, EU is committed to strengthening labor market relevance of TVET, including through alliances with companies and relevant training providers.	Large player: Much of the bilateral support coordinated under the EU umbrella. Policy objective of increasing private sector participation in development. Significant investment planned ahead, EU funding for Modjo Leather City: HDECoVA-model known to the EU, as the Academy provides training to migrants through EU funding.	No explicit focus on public-private partnerships.
EIB	The EIB has four recurring themes in its overall strategy for Africa: private sector development, vital infrastructure, climate action and regional integration. EIB is financing two projects with direct links to UNIDO: the Modjo Leather City, where UNIDO will work on value chain development, and the Agri-Business Industrial Parks.	Strong interest in private sector development, co-funding (blending) with EU. Focusing on relevant sectors. Strong potential links through ongoing work with UNIDO to identify investment opportunities.	As above, unclear what the position is vis-à-vis private-public partnerships.

DONOR	PROGRAM	ADVANTAGES	DISADVANTAGES
AFDB, ADF	Focusing on large infrastructure projects in energy and water and sanitation, with about 740M Euros 2016-2020: Program focuses on energy, transport and W&S and on promoting economic governance and business environment development	Significant investor in Ethiopia.	Will promote work readiness initiatives but it does not have a high priority in the program
WORLD BANK	Broad focus on increasing productivity and building resilience: Involved in strengthening capacity at TVET projects through TVET institutions, in the East Africa Skills for Transformation and Regional Integration program, which in turn will focus on institutional reform to develop demand driven TVET programs: Has identified training needs as particularly acute in transport, energy, manufacturing and ICT. For refugees, one out of four business lines is focused on education, (at all relevant levels, including vocational) and health/nutrition.	Large player, significant interest in vocational training and demand driven approaches: Focusing on relevant sectors: Has shown interest in HDECoVA.	Jobs compact focused on refugee populations, vulnerable populations.

Source: Donor web pages (see reference list), openaid.se

Pitching the PPDP model

The stakeholders above have different priorities and interests in the model. To mobilize support, UNIDO will need to focus on these different interests, focusing on maximizing the benefits and reducing the risks. Although potential donor partners may differ in strategies and interests — which should be identified during mapping — they are likely to share basic priorities for their work in Ethiopia; the same holds for the private sector partners. These basic priorities are summarized in Figure 5 below, together with risks, or disadvantages, that each partner may find in the PPDP model.

For **donor organizations**, the most compelling features of the PPDP model are likely to be the focus on youth employment, especially the possibility to cater to less privileged youth, female empowerment, and private sector development. The ability of the model to provide young women with training and employment opportunities in a non-traditional occupation needs to be emphasized. There is also the advantage of directly drawing on and collaborating with the private sector, as mandated through, for example, the UN Global Compact and many national development cooperation strategies. Less attractive features from the donor perspective include the relatively high cost per direct beneficiary, a result of the limited scale of the operation and the high cost of high quality TVET, and the risk of disturbing market systems through direct company support. This risk of "tying aid" needs to be factored into the design of the project so that skills and technology benefits accrue to the sector as a whole and not only to the private company/companies involved in the project. The HDECoVA is a good example of this, as students have found employment outside of Volvo dealers and benefits have hence spread.

For a **multinational private sector partner**, the project should offer the opportunity to tie directly into an existing CSR strategy. In Volvo's experience, the positive outcomes of the project, including both job creation and support for upscaling of technical education, builds goodwill and a strong reputation locally. The project also helps improve business by reducing skills gaps, although this is not a firm-specific advantage. The current set-up of the model is cost effective, using in-kind contributions innovatively and the reputational and financial risk is shared with donors. At the same time, private firms invariably worry about branding and competition, and may be hesitant to share state-of-the-art knowledge with local (or foreign) competitors. In this context, the experiences of Volvo - which changed its perspectives over time on this - could be shared to help illustrate the benefits of supporting skills development generally and not only within the firm, however. Another likely deterrent is the complex governance structure – in particular the need to interact directly with government institutions. The advantages of anchoring CSR activities within the development strategy of the Government, and the role of donors and implementors (UNIDO) in facilitating exchange with the Government side, need to be clarified.

The Government is a key player in principal but, at the moment, not in practice. The project is seen as a good model by the MoE, but they are currently not likely to have the institutional capacity to be driving the process, in the sense of gauging opportunities with the private sector and with donors. The ongoing revamping of the Government may also influence the opportunities for engagement. Taken together these factors suggest is better to present a partnership to the Government, with other key stakeholders already identified. The Government, whether at the national, regional or local (municipal) level, will be interested in the opportunities for fostering job creation for youth and improving conditions for the private sector, and – critically – upgrading the transport and logistics sector, in line with the current growth strategy.

For the **partner school**, the advantages include resources and opportunities to strengthen the quality and reputation of its services. Any school will nonetheless have limited capacity for handling a demanding coordination around a complex governance, many different focusses outside those of educational goals (underprivileged students, gender, job creation), and complex monitoring and evaluation systems. Building this capacity through a pilot project would of course be an additional advantage.

Figure 5: Partner benefits from PPDP model

DONORS

ADVANTAGES

Job creation and skills development for underprivileged youth.
Women's access to skills.

Improve business environment.

Work with private sector as per Global Compact and pooling resources.

Strengthening industrial associations/local private sector.

DISADVANTAGES

Cost per beneficiary.

Limited scale.

Disturbing markets.

PRIVATE SECTOR

ADVANTAGES

Gaining goodwill, reputation

Contribution to job creation, education, gender equality, environment.

Reducion of skills gaps and raising productivity (quality of education).

Cost effective.

Risk sharing.

DISADVANTAGES

Complex governance.

Competition.

PPDP model

GOVERNMENT
(Central or Local)

ADVANTAGES

Job creation for youth.

Strengthening the transport sector to foster .industrialization and decentralization.

Reducion of skills gaps and raising of productivity (quality of education).

DISADVANTAGES

Limited scale.

Many different objectives.

Complex governance.

PARTNER SCHOOL

ADVANTAGES

Advantages.

Resources.

Reputation strengthening.

Capacity building.

DISADVANTAGES

Complex governance.

Many different objectives.

Complex monitoring and evaluation.

Source: LKDF (2015) and further elaboration by author

Maximizing advantages entails designing the next project with the lessons learned from HDECoVA in terms of enhancing job creation and ensuring access to less advantaged groups, including women. Key overriding risks for each partners include complex governance, the many different objectives, and the complex M&E, and, for the model as a whole, the differences in culture between governments, donor institutions, and firms — which invariably create tensions in joint projects. This opens up a strong role for UNIDO, as an implementing partner, to provide the interface between these stakeholders and carry the institutional memory of the lessons learned from PPDPs.

Lessons for UNIDO

UNIDO has developed significant experience in designing and implementing PPDPs but needs to consider how to strengthen resources to scale up these projects. The previous section provides what is at once an overview of of different selling points that need to be made to potential stakeholders, as well as a list of project features that need to be addressed in project design and implementation. How can UNIDO make these lists operative? What is required in terms of resources and organizational change? Interviews and desk research undertaken for this report provide insights with respect to UNIDO's own role in achieving systemic change. Overall, the findings are also in line with those in a recent evaluation of the LKDF initiative (Box 2).

Box 2: Key findings from the LKDF evaluation

An evaluation of the LKDF initiative was published in 2016. The findings confirmed the strategic development relevance of the LKDF as well as of the different PPDPs under its umbrella. Findings with immediate relevance for this report include suggestions that:

- LKDF should explore opportunities to work in other partnerships in parallel to PPDPs to strengthen policy dialogue and foster systemic change
- LKDF should develop a systematic marketing and sales work plan to approach donors systematically with evidence of PPDPs' strength
- The PPDP approach should be better anchored in UNIDO's leadership
- Greater pro-business and private sector engagement — sanctioned at the highest level in UNIDO — would be needed to increase impact.

Source: UNIDO (2016)

Entry points through the Programme for Country Partnership. In Ethiopia, UNIDO has a strong program, through the Programme for Country Partnership. The program involves heavy coordination with the Ministry of Industry, and to a lesser extent with Ministry of Agriculture, as well as in-depth insights into the industrial development agenda. As discussed, it should provide good opportunities for coordination with a PPDP-project.

Strengthening pro-business engagement. UNIDO's mission – inclusive and sustainable industrial development – is centred on the private sector. As the analysis above shows, the private sector landscape is complex and identifying important foreign or domestic players, their strategies, and potential partnerships, requires significant resources. Discussions with donors, UNIDO project staff and NGOs show that whereas the Government entities and their position are quite well known and understood, the private sector is not. The chambers of commerce do not appear to be sufficiently effective mechanisms for reachout, and so considerable footwork is needed to identify such partners. There is also a need for UNIDO to build up a reputation for being the most effective intermediary between public and private sector cultures and objectives. There appear to be different ongoing attempts to gauge a better understanding of the local private sector. GIZ, for example, wants to support the creation of sector guilds. These associations may work as a parallel structure to chambers of commerce, and could become a partner for discussions around the skills agenda.

Organization and resourcing of UNIDO. PPDP projects are resource intensive to manage and demand a wide range of capabilities: basic project management, innovative approaches and entrepreneurships skills in building up financial and institutional sustainability and a whole set of strategic, technical and diplomatic skills to help foster systemic change in the TVET system. At the same time, to build up relationships with government as well as the private sector, a certain level of seniority and position in the institutional hierarchy is needed in Ethiopia as indeed in many other countries. Project managers are not well placed to handle both day-to-day management of

the project, build up conditions for institutional and financial sustainability of the project, liaise with donors and firms, focus on advocating scaling up, and systemic change. A clear message from interviews and desk research is that it is imperative that UNIDO/LKDF provide adequate resources for project management, including for scaling up. All PPDPs within the LKDF should lead to systemic change and all PPDPs face challenges in this regard providing scope for cross-project learning. Hence, UNIDO needs to consider how to most effectively provide the strategic support necessary. For example, HQ could provide focal points for (i) project business/sustainability plans and (ii) best practice for influencing systemic change, including appropriate marketing of projects facilitating dialogue with private and public sector partners, donor mapping, and best approaches to private sector mapping and engagement. While it bears repeating that PPDPs are likely more efficient when opportunity-driven, UNIDO could try to develop methods to organize the collection and management of information around major donor programs as well as major multinational companies in relevant sectors.

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Annex 1. Interviews

Meetings:

17/09/18	Abera Melessa Ayalneh	National project coordinator	UNIDO
17/09/18	Hailegebriel Woldeyohanis	Procurement coordinator	UNIDO
20/09/18	Fasil Reda TenaCountry	Program coordinator, PCP-Ethiopia	UNIDO
17/09/18	Abebe Wendimu	Former student, now at university	HDECoVA
19/09/18	Not provided	Current student (female)	HDECoVA
19/09/18	As above	Current student (female)	HDECoVA
19/09/18	As above	Current student (female)	HDECoVA
19/09/18	As above	Current student (female)	HDECoVA
19/09/18	As above	Current student (female)	HDECoVA
19/09/18	As above	Current student (female)	HDECoVA
19/09/18	As above	Current student (female)	HDECoVA
17/09/18	Hanna Ngusie	Instructor, former student	HDECoVA
19/09/18	Fuade Fedlu	Former student, now employee	Equatorial Business Group (EBG), Trucks
19/09/18	Dawit Dejene	Former student, now employee	EBG, Trucks
19/09/18	Addisu Gezahege	Former student, now employee	EBG, Construction Equipment
19/09/18	Elin Carlsson	First Secretary	Sida/Embassy of Sweden
19/09/18	Alexander Sellerholm,	Second Secretary	Sida/Embassy of Sweden
19/09/18	Leul Wondemeneh	National Programme Officer,	Sida/Embassy of Sweden
18/09/18	Robert Briatore	Service Development Manager	Volvo
18/09/18	Samuel Desta	Construction Eqpmt Maintenance Manager	Equatorial Business Group
20/09/18	Not provided	Training Program Coordinator	Nefas Silk College
20/09/18	Harald Fuchs	TVET Advisor	GIZ
20/09/18	Olaf Broda	Expert for Innovation + Research	GIZ/CIM
21/09/18	Zakir Elmi	Team member, Li-Way	Save the Children's Fund
21/09/18	Mahlet Seifu	Team member, Li-Way	Mercy-Corps
21/09/18	Metselal Abraha	Team member, Li-Way	SNV
21/09/18	Binyam Birhanu	Team member, Li-Way	Technoserve
21/09/18	Not provided	Project Officer	Federal TVET Agency

Phone Interviews:

23/08/18	Mattias Larsen	Project Manager	UNIDO HQ
05/09/18	Bashir Condé	Project Manager	UNIDO HQ
06/09/18	Dejene Tezera,	Director, Agribusiness, former PM of HDECoVA	UNIDO HQ
11/09/18	Jonas Rönnebratt	Aftersales Director, Africa region, original counterpart for HDECoVA	VOLVO
28/09/18	Peter Malmgren	Consultant, former Volvo employee	UNIDO Ethiopia
03/10/18	Johan Reiman	Manager, CR projects	VOLVO
03/10/18	Janne Sykkö	Consultant, Lead evaluator of HDECoVA	Manketti Group

Annex 2. Project Logical Framework

NARRATIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Overall objective The overall objective of this project is to improve access to gainful employment opportunities for Ethiopian youth in high technology commercial vehicle maintenance, hence contributing to the poverty reduction efforts in the country.	Increased employment of youth in the heavy construction industry. Cost-reductions due to better maintenance of equipment.	- Official statistics collected by the gov. or by the project. - Surveys carried out by the project.	
Outcome - Trainees graduating from Selam technical academy obtained employment within a year of graduation. - Minimum of 85% of academy graduates gainfully employed. - Minimum of 25 youth are trained every year and graduate in high-tech maintenance of commercial vehicles — and are gainfully employed. - the skills of minimum 90 technicians per improved annually through tailor made trainings in preventive and other basic maintenance of commercial vehicles (UNIDO &Selam activity).	- Number of persons graduating successfully each year. - Number of short-term training participants each year. - Number of companies using services of academy graduates. - Business community's satisfaction level with the graduates' skills. - Rate of formal sector employment for graduates after one year,	- M & E of the project - Regular surveys among enterprises - Tracer study of graduates	
Outputs: 1. A training academy for operations and maintenance of commercial vehicles and industrial machinery established and operational in Ethiopia. 2. New curriculum modules developed and approved by relevant authorities, 3. Trainers in technical field are trained (international) and in other support subjects (locally) to deliver up-to-date training courses in heavy duty vehicle maintenance. 4. Young trainees graduate in operations and maintenance of commercial vehicles and related computer systems. 5. Students undertake internship in the industries to gain practical experience	- Functional training centre fully equipped with facilities to deliver modern training. - Curricula that are appropriate and meet with industry demand are developed and accepted. - Minimum of 3-4 trainers provided with up-to-date technical skills to carry out high-level technical training and minimum of 3 support trainers trained (locally) to provide language and computer training. - At least 25 regular trainees graduate per year successfully completing the programs, and a minimum of 90 technicians trained (depending on the demand) in short term skills upgrading trainings (to be determined later by Selam and UNIDO). - a three week minimum internship for every student/ year.	- M & E of the project - Trainers' teaching performance - Enterprises surveys	- Counterpart personnel who received training remains within the Center.
Cluster of activities - Develop/improve curricula for the Selam training centre. - Provide key trainers with the technical and pedagogical skills necessary to deliver upgraded and new training curricula. - Repair and refurbish the training buildings as necessary. - Develop appropriate, transparent all-inclusive selection criteria for trainees - Provide training equipment and furniture needed to implement the courses. - Initiate and monitor the training program.			**Preconditions** - Selam provides on a timely manner the Centre so it can be reorganized into the academy.

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