Industry Engagement through Cooperative Placement Programs
Acknowledgments

<table>
<thead>
<tr>
<th>Author</th>
<th>Catherine Walker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editing and Review</td>
<td>Jennifer Denomy and Ashlea Webber</td>
</tr>
<tr>
<td>Graphic Design</td>
<td>Dalilah Jesus</td>
</tr>
</tbody>
</table>

The Agricultural Transformation Through Stronger Vocational Education (ATTSVE) project was led by Dalhousie University in partnership with Mennonite Economic Development Associates (MEDA), McGill University and Jimma University of Agriculture and Veterinary Medicine (JUCAVM). The ATTSVE project was made possible with the generous support of Global Affairs Canada.

Thanks to ATTSVE’s many partners, staff and MEDA’s generous private supporters.
## Table of Contents

Acknowledgments .................................................................................................................. 2  
Acronyms ............................................................................................................................... 4  
Abstract .................................................................................................................................. 4  
Introduction .............................................................................................................................. 5  
  - About the ATTSVE Project ............................................................................................... 5  
  - The MEDA ATTSVE Learning Series .............................................................................. 5  
  - The Innovation Fund .......................................................................................................... 6  
    - Innovation Fund Strategy ............................................................................................... 6  
    - Overview ......................................................................................................................... 6  
Methodology ............................................................................................................................. 7  
Cooperative Placement Programs ............................................................................................. 8  
  - ATTSVE Student Cooperative Placement (SCP) Program .................................................. 9  
    - SCP Implementation Process .......................................................................................... 9  
    - Geographic and teaching modality considerations ....................................................... 11  
Results and Discussion ............................................................................................................ 12  
  - Successes .......................................................................................................................... 12  
    - Skill Acquisition ........................................................................................................... 12  
    - Job Acquisition ............................................................................................................. 13  
    - Mutual Benefits for Host Organizations and Students .................................................. 15  
  - Challenges ......................................................................................................................... 18  
    - Stipend Amount and Delivery ....................................................................................... 18  
    - Selection, Supervision and Communication with Industry Hosts .................................. 18  
    - Support and Supervision by ATVET Instructors ........................................................... 19  
    - Placement Length and Timing ...................................................................................... 19  
Lessons Learned and Recommendations for Future Programs .......................................... 20  
  - Program Management Recommendations ...................................................................... 20  
  - Educational Recommendations ......................................................................................... 22  
Conclusion ................................................................................................................................. 23
Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTSVE</td>
<td>Agricultural Transformation Through Stronger Vocational Education</td>
</tr>
<tr>
<td>ATVET</td>
<td>Agricultural Technical and Vocational Education and Training</td>
</tr>
<tr>
<td>BoA</td>
<td>Bureau of Agriculture</td>
</tr>
<tr>
<td>COC</td>
<td>Certificate of Competency</td>
</tr>
<tr>
<td>DAs</td>
<td>Development Agents</td>
</tr>
<tr>
<td>DDP</td>
<td>Dehansit Dairy Production</td>
</tr>
<tr>
<td>FNRRTC</td>
<td>Fogera National Rice Research &amp; Training Center</td>
</tr>
<tr>
<td>FTC</td>
<td>Farmer Training Center</td>
</tr>
<tr>
<td>GAC</td>
<td>Global Affairs Canada</td>
</tr>
<tr>
<td>JUCAVM</td>
<td>Jimma University of Agriculture and Veterinary Medicine</td>
</tr>
<tr>
<td>KII</td>
<td>Key Informant Interview</td>
</tr>
<tr>
<td>MEDA</td>
<td>Mennonite Economic Development Associates</td>
</tr>
<tr>
<td>MoSHE</td>
<td>Ministry of Science and Education</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>SCP</td>
<td>Student Cooperative Placement</td>
</tr>
<tr>
<td>SME</td>
<td>Small Medium Enterprise</td>
</tr>
<tr>
<td>SNNPR</td>
<td>Southern Nations, Nationalities and People’s Region</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
</tr>
</tbody>
</table>

Abstract

Cooperative training is a model commonly used within the Technical Vocational Education and Training (TVET) sector globally through which students spend time working with industry to gain practical experience, complementing in-class instruction. In the Ethiopian context, cooperative training does not form a meaningful part of the current agricultural TVET (ATVET) curriculum. To address this gap and enhance engagement with industry within the agricultural sector, as part of the Agricultural Transformation Through Stronger Vocational Education (ATTSVE) project, select students from the project’s four ATVET partners were placed with local industry hosts for a four-to-eight-week period (typically during the summer months when classes are not in session). From 2016-2021, a total of 2,580 students (1,006 or 39% women) participated in the program. Key successes include positive impact on skill and job acquisition as well as the leveraging of mutual benefits for ATVETs and placement hosts. Challenges include stipend amount and delivery; selection, supervision, and communication with industry hosts; support and supervision by ATVET instructors; and placement length and timing. The learning document makes several recommendations for future programming, including program management strategies and educational recommendations.
Introduction

About the ATTSVE Project

Agricultural Transformation Through Stronger Vocational Education (ATTSVE) was funded by Global Affairs Canada (GAC) and implemented in Ethiopia from 2014-2021 by Dalhousie University, McGill University, Jimma University of Agriculture and Veterinary Medicine (JUCAVM) and Mennonite Economic Development Associates (MEDA). The goal of the ATTSVE project was to increase the number of men and women graduates from selected Agricultural Technical and Vocational Education and Training (ATVET)\(^1\) institutions in Maichew (Tigray region), Nejo (Oromia region), Wolaita Soddo (Southern Nations, Nationalities and People’s Region), and Woreta (Amhara region), with skills and knowledge required by the labour market for the commercial agriculture sector in Ethiopia.

MEDA was the project lead for business, entrepreneurship, and value chain development, focused on strengthening the educational and economic capacities of the targeted ATVETs through the following interventions:

- **Business advising and Innovation Fund Grants to ATVETs and graduating students** to promote sustainable and replicable income generating activities
- **Strengthening industry linkages** to facilitate skills development, enabling practical learning opportunities for students in appropriate sectors through facilitation of cooperative placements
- **Curriculum development** in value chain and business management in the selected ATVETs

The MEDA ATTSVE Learning Series

This paper is part of a series of learning documents developed by MEDA focused on identifying and sharing key lessons learned over the life of the ATTSVE project. There are a total of four documents in this series, each focusing on a key project element, namely:

- ATVET Income Generation through On-campus Businesses
- Establishing Successful Student Start-Up Businesses
- Industry Engagement through Cooperative Placement Programs
- Market-Driven Business, Entrepreneurship, and Value Chain Curriculum Development

This learning paper focuses on the cooperative placement program, highlighting what the project has learned about conducting industry placements in the ATVET system in Ethiopia.

---

1. Technical Vocational Education and Training or TVET is defined as education and training which aim to equip people with knowledge, know-how, skills and/or competences required in specific occupations or more broadly on the labour market. TVET institutions differ from universities in that they focus on providing more practical and experiential learning. Agricultural TVET or ATVET is a sub-set of the TVET system focused specifically on the agricultural sector. In this paper we also refer to ATVETs as agricultural colleges or colleges.
The Innovation Fund

A key component of MEDA’s role on ATTSVE was the establishment of an Innovation Fund with three distinct grant mechanisms supporting project objectives related to college income generation, youth entrepreneurship and industry linkages as outlined below:

<table>
<thead>
<tr>
<th>Innovation Fund Strategy</th>
<th>Overview</th>
</tr>
</thead>
</table>
| **Strategy 1:** Micro-Value Chain Development Grants | • **Description** — Grants for ATVETs to start businesses on campus. Each ATVET chose two commodities for a total of eight grants during the project.  
• **Goal** — To provide practical learning opportunities for students and instructors as well as provide a source of income generation for the ATVET. |
| **Strategy 2:** Student Start-Up Grants | • **Description** — Grants for graduating students to fund new businesses. Students could apply in groups of up to five students. A total of 272 young people (90 women) received grants during the project.  
• **Goal** — To provide practical ways for students to apply their learnings and provide a source of income generation. |
| **Strategy 3:** Student Cooperative Placement Stipends | • **Description** — Stipends to cover living and transport costs for students to participate in four- to eight-week long cooperative placements with industry actors. A total of 2,580 students (1,006 women) completed the placement program.  
• **Goal** — To provide practical learning opportunities for students, work experience and connections to potential future employers. |
Methodology

Data was collected using a mixed methods approach, drawing on monitoring data collected throughout the implementation of the project (including a sustainability assessment conducted by MEDA and JUCAVM in October 2017 and annual assessments conducted by JUCAVM), secondary source data review, a survey conducted in June 2020 with former cooperative placement students as well as a series of key informant interviews (KIIs) conducted with government representatives (3), ATVET administrative staff (Deans and Vice Deans) (7), instructors (6), placement hosts (10) and recent graduates who previously participated in the program (10) conducted between February and October 2021.

The survey of cooperative placement students was completed via phone with a total of 383 students, of whom 149 were women. Survey participants were selected using a randomized selection approach based on lists of cooperative placement participants.

<table>
<thead>
<tr>
<th>ATVET</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maichew</td>
<td>111 (44 Women)</td>
</tr>
<tr>
<td>Nejo</td>
<td>81 (23 Women)</td>
</tr>
<tr>
<td>Wolaita Soddo</td>
<td>65 (20 Women)</td>
</tr>
<tr>
<td>Woreta</td>
<td>126 (62 Women)</td>
</tr>
</tbody>
</table>

Figure 1

The Maichew ATVET is located in the Tigray region, and due to the ongoing conflict, it was not possible to conduct KII interviews for this paper. Where possible, data on Maichew is included from alternative sources, such as project reports. In addition, the student survey was conducted using a sample of participants from all four colleges, including Maichew.
Cooperative Placement Programs

The Ethiopian Ministry of Science and Education (MoSHE) defines cooperative training as a model which involves cooperation between enterprises or industries and TVET institutions that allows trainees to spend time working within enterprises/industries aligned with their field of study in order to gather knowledge, skills, experience and attitudes in an industrial environment. The time in the TVET institutions is focused on acquiring basic skills and theoretical concepts that can then be applied through practical work placements. Cooperatives training is a model used in the TVET systems of many countries; however, the application of this model varies across TVET systems, primarily in the amount of time that students spend in placements and the level of engagement of industry in providing training/coaching.

In the Ethiopian context, conversations with key stakeholders within the ATVET sector revealed that cooperative education models involving industry placements were previously an element of ATVET education; however, they were eliminated by the ATVET system and have not been offered since well before the start of the ATTSVE project in 2015. In discussions with stakeholders during field missions in October 2017, those interviewed (including ATVET and Ministry of Agriculture representatives) were unable to provide a reason why this program was eliminated. However, a follow-up meeting with a representative from the Office of Agriculture in Wolaita Soddo in 2021, noted that the program was previously called an Apprenticeship program and was terminated as it was costly and challenging from both a budgetary and human resource perspective to supervise students across the region. A number of the ATVETs participating in the ATTSVE program do continue to offer short-term field visits as part of their curriculum; however, these are typically limited to 1-day visits which do not provide sufficient time for skill acquisition.

The 2020 Ethiopian Technical and Vocational Education and Training Policy and Strategy, issued by the MoSHE, includes developing and implementing alternative models of cooperative training as a key element of its strategy; however, they acknowledge the challenges in implementing this model. “Even though several trainees have gone through the cooperative training system and joined the world of work, the implementation has encountered various challenges including loss of trust by the industry. Therefore, it is necessary to make the TVET sector more effective by strengthening a system of cooperative training accepted by the industry.” Key strategies identified to address these challenges include:

1. Formulating legally binding regulations to realize the mutual benefits and responsibilities of trainees, the industry and TVET institutions while engaging in cooperative training.
2. Devising incentive mechanisms for those industries which actively engage in cooperative training.
3. Establishing a mechanism for preparation and development of qualified industry trainers to implement cooperative training.
4. Establishing production and service centers/learning factories in TVET institutions located in the areas where industry is not sufficiently available.
5. Employing alternatives to cooperative training such as apprenticeships, internship and traineeship based on the nature of the occupation, location of the TVET institutions, and interest of the industry.²

³ Ibid
Based on this prioritization of cooperative education from government and interest in exploring alternative models, the development of this learning document comes at an ideal time, sharing the experience of the ATTSVE project in implementing one such model – the Student Cooperative Placement (SCP) program.

**ATTSVE Student Cooperative Placement (SCP) Program**

**SCP Implementation Process**

As a component of the ATTSVE project, the SCP program was initiated to place students at local private sector and industry hosts in the agricultural sector for a four-to-eight-week period (typically during the summer months when classes are not in session), targeting the four ATVET partners (Maichew, Nejo, Wolaita Soddo and Woreta). Financial support was offered through the project’s Innovation Fund in the form of a stipend to help cover the costs associated with completing the placements, including transportation, food, and accommodations. This element of the project was jointly managed by Jimma University College of Agriculture and Veterinary Medicine (JUCAVM) and Mennonite Economic Development Associates (MEDA), with MEDA leading the administration of the SCPs and JUCAVM leading the development of industry relationships and supporting the monitoring of placements.

From 2016-2021, a total of 2,580 students (1,006 or 39% women) participated in five rounds of the program (see Figure 2 below for the breakdown by college). Due to COVID-19-related school closures, placements originally scheduled for 2020 were delayed to 2021. Regional security considerations also meant that in 2018 placements could not be completed in Nejo and Wolaita Soddo and in 2021 placements could not be completed in Maichew contributing to lower overall placement rates in these locations. In addition, as described in further detail below, more placements were offered in Woreta at a lower stipend amount since Woreta ATVET focuses on upgrading skills of currently employed government Development Agents (DAs).

![Cooperative Placement Participation by ATVET](image-url)
Placements were conducted at public and private institutions with Memorandums of Understanding (MOUs) developed between the colleges and industry stakeholders to outline key areas of collaboration, including hosting cooperative placement students. During the placements, students work alongside employees of the institution to learn both technical and employability skills. Each placement host assigns an employee to act as the key point of contact between the ATVETs/ATTSVE and the host institution as well as assigns staff to oversee the students.

The ATTSVE project worked with the ATVETs to develop and sign MOUs, oversee the application process for students interested in completing cooperative placements, and conducted periodic monitoring/supervision visits to each of the placement hosts, which included an assessment of changes in student skill levels. In addition, each year JUCAVM conducted a more comprehensive monitoring visit, meeting with placement hosts and students to capture lessons learned for future years. At the end of each placement period, students were also asked to complete a brief survey identifying what they had learned during the placement and capturing feedback.

The application process was competitive based on a combination of grades and a written application outlining the student’s motivation for participating in the SCP as well as the skills they hoped to gain. Efforts were made to match students with placement hosts aligned with their field of study. Placement hosts were generally expected to provide personal protective equipment (PPE) to participating students; however, the colleges would also assist with this requirement where supply did not allow. A stipend was provided to each student to assist with covering the costs associated with the placement, with the exact amount adjusted based on the college context and budget availability. Placement hosts were also encouraged to provide additional support to students in the form of accommodations, transportation, stipends, etc. based on their own budget availability.

Examples of placement hosts and areas of focus at each institution are summarized below:

<table>
<thead>
<tr>
<th>ATVET</th>
<th>Host Institutions</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maichew</td>
<td>Bokra Union</td>
<td>Dairy Production/Processing</td>
</tr>
<tr>
<td></td>
<td>Raya Horti Farm</td>
<td>Horticultural Production</td>
</tr>
<tr>
<td></td>
<td>Tigray Biotechnology Center</td>
<td>Plant Tissue Production</td>
</tr>
<tr>
<td></td>
<td>Mekelle University Veterinary Campus</td>
<td>Veterinary Services</td>
</tr>
<tr>
<td>Nedjo</td>
<td>Various Farmer Training Centers</td>
<td>Various Agricultural sectors</td>
</tr>
<tr>
<td></td>
<td>Mesfin Tadese Dairy, Fattening and Milk Processing PLC</td>
<td>Dairy, Fattening and Milk Production</td>
</tr>
<tr>
<td>Wolaita Soddo</td>
<td>Areka Research Center</td>
<td>Vegetables, Roots and Tubers</td>
</tr>
<tr>
<td></td>
<td>Areka Fruit Nursery (Boloso Sore Agricultural Office)</td>
<td>Fruit Production</td>
</tr>
<tr>
<td></td>
<td>ATVET Income Generation (IG) Farm</td>
<td>Dairy, Poultry, Vegetables, Forest Nursery, Various Others</td>
</tr>
<tr>
<td>Woreta</td>
<td>Dehansit Dairy Production (DDP)</td>
<td>Dairy Processing</td>
</tr>
<tr>
<td></td>
<td>Fogera District Animal Health Clinic &amp; AI Center</td>
<td>Animal Health and Artificial Insemination</td>
</tr>
<tr>
<td></td>
<td>Fogera National Rice Research &amp; Training Center (FNRRRTC)</td>
<td>Rice Production/Processing</td>
</tr>
<tr>
<td></td>
<td>Alem Saga Chicken Farming PLC</td>
<td>Poultry Production (SME Start-Up Grant Year III recipient)</td>
</tr>
</tbody>
</table>
Geographic and teaching modality considerations

The four participating ATVETs apply different teaching models and work in different industries and regions of the country with varying levels of industry presence. In recognition of these differences, the cooperative placement program was implemented differently in each region and faced distinct challenges and opportunities based on the specific ATVET context.

A summary of the unique elements of implementation of each program is provided here:

Maichew ATVET is located in Tigray region about 128 km from the regional capital of Mekelle. Due to its proximity to Mekelle, the region is host to a relatively large number of industrial players and students could also be placed in Mekelle itself, notably at Mekelle University, which has a well-established veterinary medicine program and was able to provide accommodations for students in on-campus dormitories. In this region, MEDA found increased willingness among private sector hosts to offer financial support for students, including supplemental stipends, transportation and housing, although this support was inconsistent depending on resources available and companies were hesitant to commit to providing these resources on a longer term.

Wolaita Soddo ATVET is located in SNNPR, is situated in a relatively large town, thus there were some placement opportunities available with the private sector. In addition, Wolaita Soddo leveraged their own on-campus agricultural facilities to offer placements working on college farms and providing on-campus accommodations to students to ease the financial burden of participation.

Nejo ATVET, located in Oromia region, is a relatively remote location, with minimal industry present in the region. The majority of employment opportunities for graduates from the ATVET are with government as Development Agents (DAs), also known as agricultural extension workers. As such, the placement program in Nejo focused primarily on placing students within the Bureau of Agriculture.

Woreta ATVET is distinctive from the other partner ATVETs, as the institution focuses on upgrading students already employed as DAs. As such, the vast majority of Woreta students are older and more experienced than their counterparts at other partner institutions. In addition, since students are already employed, they have a source of regular income, decreasing the financial pressures associated with taking on a cooperative placement that may be located away from home. Based on its upgrading model, Woreta employs a different schedule and course modality, with courses running throughout the year (including during the summer months).

Placements at three colleges (Maichew, Nejo and Wolaita Soddo) were completed continuously over a four to eight-week period during the summer months while students did not have classes. This modality was agreed upon in conjunction with the colleges. The project considered integrating the cooperative placements into the academic year; however, since not all students would be participating in the program (due to budget availability and number of available placements), this was deemed impractical. The program prioritized Level III students who would be returning to the colleges in the Fall to complete their final year of the DA curriculum. These students were prioritized as they would have a sufficient level of technical skill but also be returning to the ATVETs to apply and share their learnings.

In contrast, at Woreta, students completed their placements during the academic year with the cooperative placements built into their class schedules. Set days of the week were spent in class and others in their host institutions. This was possible based on the course modality, availability of placement hosts, and decreased financial pressure for students which allowed for the provision of a lower stipend and thus the participation of a full cohort of students.
Results and Discussion

Successes

Overall feedback on the SCP program was generally positive with students and faculty supportive of continuing the program. Comments from the 2020 student survey capture this sentiment:

“It is known that the college will continue to provide courses and I would like if they continued this cooperative placement for the next generation.” – Nejo Student

“It is known that education will not stop, so I would like if SCP continued, because it will contribute a lot to develop skills and knowledge of the students” – Nejo Student

Specific areas of success are outlined in further detail below.

Skill Acquisition

Students and instructors emphasized the benefits of the program from a skill acquisition perspective. In the student survey, respondents were asked to identify which of the following three skill areas were the most beneficial/impactful: Technical Skills, Business/Entrepreneurship Skills, and Interpersonal skills. The majority of respondents selected Technical Skills and listed a variety of specific skills gained depending on the placement, such as fruit grafting, artificial insemination, soil sampling, and seedling establishment/management among many others.

When asked what respondents told their friends about the placement program, the responses were overwhelmingly positive in the area of skill acquisition:

“Regardless of benefit from cooperative placement in cash, I tell them the benefit it has in developing skills and [the] practical experiences it provides”
– Male Student, Nejo

Instructors also highlighted the value of the cooperative placements from a skill building perspective. When asked if they noticed any differences in the skills, knowledge and attitudes of students who participated in the cooperative program versus those that did not, one Woreta instructor noted that he saw a difference, particularly in students who participated in placements with private businesses, noting that they had gained skills and an interest in entrepreneurship. Another Woreta instructor noted that the cooperative placements were particularly helpful for gaining skills in practical activities with specific procedures or steps, such as drip irrigation. An instructor at Nejo emphasized the soft skills gained, including understanding the needs of farmers, problem-solving and social and community engagement skills (skills particularly relevant for graduates looking to become DAs).
An interesting practice at Woreta was to place students at some of the graduating student start-up businesses funded through another stream of the Innovation Fund (for example Alem Saga Chicken Farming PLC, a poultry business). This approach allowed students to specifically learn about entrepreneurship and see an example of peers who were able to start their own businesses. Other colleges should consider this model to maintain relationships with their graduating students while providing peer learning opportunities around entrepreneurship.

**Job Acquisition**

Data collected by the project supports a positive link between the cooperative placements and job acquisition. Figure 3 provides a break-down by ATVET of the current employment status reported by young people who completed the survey:

As noted above, the project prioritized Level III students who would have one year remaining in their studies prior to graduation. Due to COVID-19, many students were delayed in completing their academic programs and thus many had not yet graduated when the survey was completed. Former Woreta students reported a 100% employment rate; however, this result is to be expected as the majority of students at Woreta are upgrading students with secured government jobs to which they return after graduation. All respondents from Woreta listed government agricultural offices as their current employers.

Maichew and Nejo show a similar proportion of students across the four categories, with Soddo showing higher rates of formal employment, but lower rates of self-employment compared to the other two colleges. As Wolaita Soddo is a larger town compared to Maichew and Nejo, which are more rural with less industry, it is logical that employment rates would be higher in Soddo while in Maichew and Nejo graduates would increasingly look to create their own employment opportunities.
The four colleges do not currently collect data regarding the employment status of students following graduation, so it is not possible to compare employment rates among students who completed cooperative placements with the general student population. Noting this limitation, the student survey supports the linkage between cooperative placements and job acquisition. Respondents who are now employed were asked to rate the extent to which the cooperative placement contributed to securing their current employment. The average scores all fell above four on a scale of zero to five (zero being not at all and five being highly contributed):

![Figure 4](image)

While students did rate this question highly, when asked how they gained their employment, the majority noted that this was through open competition and did not reference direct employment connections gained through the cooperative placements. The lack of direct job opportunities may be explained by the timing of the placements in the education cycle. Cooperative placement students generally had one year remaining in their studies and thus could not move directly into jobs, but instead applied the skills they learned in pursuing other opportunities after graduation. The fact that young people were able to find employment primarily based on skills rather than contacts also speaks to a more objective increase in employability. Some students were able to gain direct employment with placement hosts, particularly with government ministries which continues to be the most common employer for graduating DAs in most regions of Ethiopia (see text boxes for case study examples of students who gained employment either directly with their placement host or with other institutions).

These findings suggest that while in most cases there is not a direct connection between cooperative placements and obtaining jobs, the skills gained through the placements contributed to successful employment for many young people.

Once again, responses from students to the question “What did you tell your friends about the placement program?” are illustrative:
I advise them not to be faithless even if the cooperative placement will not have any stipend, as the practical attachment plays a great role for exploring career opportunities for them and is helpful to advance their skills for their future life to live working their profession.”– Male Student, Nejo

Employment with Other Industry Actors

Azalech Duko, a female student from Soddo ATVET, is an example of a student who completed a cooperative placement at one institution and was hired after graduation by a different employer. Azalech completed her cooperative placement in 2017 with the Areka Agricultural Research Center and after graduating in 2018, she was employed as a Youth Organizational Site Manager by the District Agricultural Office. She noted that she frequently draws on both the technical skills she gained during her cooperative placement in fruit grafting and the soft skills she gained in relationship development. In Azalech’s case, the cooperative placement contributed indirectly to employment through the skills she built.

Based on KIIs with placement hosts, public sector institutions generally did not see the cooperative placement program as a method of recruitment, as there are clearly defined competitive application processes for full time positions. Private sector institutions were more open in this regard, noting that the cooperative placements were a way for students to build skills that may then lead to employment, although they could not commit to hiring students after graduation.

Mutual Benefits for Host Organizations and Students

In 2017, MEDA and JUCAVM conducted a series of KIIs with placement hosts to understand their perspectives on the cooperative placements to help improve the program. This study was complemented by additional KIIs in 2021 conducted at Nejo, Wolaita Soddo and Woreta to gain further feedback and observe changes in host organization perspectives over time (as noted in the introduction, due to the security context, follow-up KIIs were not possible at Maichew, so results speak to 2017 interviews).

Overall, across both sets of KIIs, industry actors across the four ATVETs saw the benefit of the cooperative placement program, with private sector actors increasingly focused on the cost savings and future recruitment potential and government industry actors increasingly motivated by their mandate to train and support future generations. In a number of cases, industry actors showed their support through financial and material contributions to the program. For example, Raya Hortifarm provided stipends to students for several years of the program and Mekelle University School of Veterinary Medicine provided free housing to students in their dormitories. These contributions were offered by the host institutions at their own volition recognizing their role in supporting the program. The support of industry is also reinforced by the number of placement hosts that continued to participate in the program for all five years of the program.
The table below provides more specific examples of the benefits of the program from the perspectives of various host organizations:

<table>
<thead>
<tr>
<th>Maichew Host Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Raya Hortifarm</strong> (a private sector host) saw the program as a win-win for both the college/students and the business, with the students gaining practical skills and the business gaining a source of labour and screening potential future employees. In 2017, the business was also rapidly expanding, having recently obtained its certification in Global Good Agricultural Practices (GAP) enabling expansion to foreign markets. As Raya needed skilled employees and as many were coming from Maichew ATVET, it made business sense to host cooperative placement students to choose the best to hire on as employees after graduation. Raya Hortifarm noted during a 2017 interview that it had employed 27 Maichew ATVET graduates representing 80-90% of his employees and the majority of the business’s supervisors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nejo Host Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Bureau of Agriculture</strong> confirmed its support of the program during 2017 consultations, emphasizing its utility as a recruitment mechanism. The Bureau Head noted that they planned to hire 23 DAs that year and estimated that a total of 180 DAs would be required in the wider zone. He noted that the SCP program was a good opportunity to identify strong candidates for these positions and emphasized that Nejo is becoming well known in the region for having strong graduates. He noted that it is the responsibility of the Bureau to support students and that they were very interested in continuing to host students and expanding the scale of the program. The Bureau continued to be the main placement host for Nejo students throughout the project.</td>
</tr>
</tbody>
</table>

| Tigray Biotechnology Center (a private sector host) also recognized the benefits of the program as a recruitment and training strategy. As the business focuses on the cultivation of plant tissue cultures, a relatively new technology that few educational institutions provide direct training in, it typically has to provide a high level of capacity building to new employees. By providing initial training through the SCP program, it then has a pool of trained potential future employees to recruit from when positions become available. The business looks to Maichew to fill many of its vacancies, some of whom will likely have completed placements with them. Beyond the business benefits, the company also felt it had a mandate to support students and provide opportunities for future generations. |

The owner of **Mesfin Dairy** noted in 2017 that he was very happy with the quality of support provided by students and their level of interest in the business. As his business was preparing to expand at that time, he saw this program as an opportunity to train potential employees as well as support the operations of his business during their placements. Mesfin Dairy continued as a placement host throughout the project and in 2021, noted that there was a strong mutual benefit for the company and the students, as the students were a source of labour, decreasing operational costs, while students benefited from practical training in areas such as extension approaches, dairy animal feeding, milking operation, forage development, and soil fertility. Given the challenging financial climate in 2021, influenced by COVID-19, Mesfin noted they did not have the finances to hire students but would consider cooperative placements as valuable employment experience.
At Areka Research Center (ARC), the manager noted during 2017 consultations that some of the students were leading and coordinating field-based agricultural research activities, creating a mutual benefit for the center and the students.

Soddo Dairy emphasized that it sees an important part of its mission as teaching and sharing knowledge with students and is committed to providing whatever support it can to enhance student learning.

ARC and Soddo Dairy also continued as placement hosts throughout the project and during follow-up interviews in 2021, ARC echoed many of the comments from earlier interviews. ARC saw benefits from the program in promoting the organization as well as in the satisfaction of hosting the program and developing the skills of young people in practical areas related to seed/seedling production and experimental research design.

One of the best examples of a mutual benefit for host/student was observed during 2017 consultations with the Dehansit Dairy Cooperative (DDC). This dairy cooperative was established in 2007 with 54 founding members and by 2017 had increased to 65, of whom 14 are women, with the objective of collecting milk from member and non-member farmers and marketing milk and milk products. The DDC representative noted that during the placements, there was a mutual exchange of skills and information, with the students training cooperative members in areas such as feed utilization and management and the cooperative training students on milk quality detection, milk processing, storage and retailing. DDC was pleased to see this mutual learning and furthermore as the company was in the process of establishing a milk processing facility which it felt could offer future job opportunities for students.

The Fogera National Rice Research and Training Center (FNRRTC) is a critical partner for Woreta ATVET given the institution’s focus on rice as a Center of Excellence. In addition, the research center is geographically located just beside the college making it convenient for students to complete placement activities. The mandate of the center is for research and training, aligning well with the purpose of the cooperative placements. FNRRTC participated as a partner throughout the program and provided positive feedback on alignment with their mission during 2017 and 2021 interviews as well as during monitoring visits.
Challenges

While perceptions of the program overall were positive, hosts, participants, and staff provided valuable feedback on how the program could be improved. Key trends and findings are summarized below.

Stipend Amount and Delivery

In the early years of the project, as financial/management systems were being established, there were delays at times in processing payments and getting stipends out to the students. The stipend distribution model was for funds to flow from the project to the colleges and then on to the students. The intention of this model was to ensure that the colleges were directly involved and accountable for the management of the program; however, these multiple layers of fund transfers and approvals took time and, in some cases, meant that students began their placements prior to receiving the first stipend payment. While the project improved its processes over time, this is an important consideration for similar programs. Given that many students must rent rooms and pay for transportation to their placements and do not have an ongoing source of income, any delays in processing funding have a major financial impact directly on students, particularly those with minimal financial resources.

At the start of the project, ATTSVE provided a standard stipend amount to all ATVET students; however, the project quickly found that it needed to differentiate the stipend amount between Woreta and the other colleges. As noted above, Woreta students are DAs employed by the government and continue to receive salaries and housing throughout the calendar year. In addition, at many colleges financial need varied by student depending on the level of material and financial support offered by the host institution. For example, students who received housing or transportation from placement hosts or were placed close to home and could live with their families incurred fewer costs than those who had to secure their own housing. Where possible, ATTSVE adjusted stipend amounts to account for these considerations. Many students noted in the survey that the stipend amount was small and should be reconsidered and adjusted to keep up with inflation and rising costs of living.

Selection, Supervision and Communication with Industry Hosts

During the host interviews conducted throughout the project, placement hosts noted that it would be beneficial to have improved communication and coordination with the colleges. They noted that more extensive orientation as well as increased engagement from ATVET staff would be beneficial in maximizing the impact of the program and ensuring smooth implementation.

While students were pleased with having practical learning opportunities, some felt that the host institutions they were placed at did not have sufficient facilities or align with their classroom learning:

"The host institution where I placed was not equipped and I would like if the host institutions are assessed before placement or facilities are fulfilled, those host institution might not go with what we learned in the class." – Nejo Student

Assessments of placement hosts were conducted prior to placements; however, these were completed largely by ATTSVE project staff. The increased engagement of the colleges in the process would help ensure appropriate selection.
In addition, some students felt that the placement hosts did not spend sufficient time supervising and supporting them:

“When we have been at STCP host institution, the contact persons were absent or not come on time and being we were fully interested to practice and share their experience, we lost an opportunity due to their low interest to let us practice. They were also not interested to share their skills and knowledge.” – Nejo Student

The Woreta and Nejo Vice Deans both noted in 2021 KIIs that low industry trust is a contributing factor, primarily concerns around students damaging equipment which make industry hesitant to let them practice their skills. Increased outreach and engagement with the host organizations and increased responsiveness of ATVET curriculum to industry needs could assist with building this trust.

Support and Supervision by ATVET Instructors

The SCP program was led by ATTSVE project staff in close coordination with the ATVETs. It was envisioned that ATVET staff would gradually assume increased responsibility for supervising, monitoring and evaluating students as well as administering the overall program. The project made significant efforts to integrate instructors into the implementation and assessment process and was successful to a certain extent in a number of the colleges; however, it was challenging to maintain consistent support due to several factors. The instructors already have quite a high workload and as cooperative placements are not a formal part of the curriculum with required evaluations, it was challenging to incentivize them to participate in these additional activities. A draw-back of the timing of the cooperative placements in the summer months was that many of the college instructors and staff take leave time or participate in upgrading courses and were unavailable for supervision, particularly at Maichew.

When asked about areas for improvement, a number of respondents in the 2020 student survey noted that they would appreciate increased follow-up by instructors, active assistance during the placements and a formal orientation to the program. During the 2021 KIIs, the college administrators also noted challenges in supervision as this program is an additional responsibility for instructors.

Placement Length and Timing

Both students and industry hosts noted that students would benefit from completing longer placements at different times of the year increasingly aligned with critical points in the agricultural season.

“The cooperative placement was very interesting but, the practical period was short and not enough to practice all what we have been learning in the class, so I would like if the time will be added to it for effective skill development of the student for future” – Nejo Student
As the cooperative placement program supported by ATTSVE was not available to all students due to budget and placement availability, the project maintained the placement period during the summer for the majority of the colleges as a different time of year would be disruptive to ongoing class schedules. However, if cooperative placements were directly integrated within the curriculum the program could be offered in different times of the year and for longer durations. This modality would also address some of the staff engagement challenges noted above. Many students noted that they would like it if this opportunity was available to everyone:

“There were a lot of my colleagues not getting this opportunity... and I would like if that opportunity includes all other students.” – Nejo Student

Lessons Learned and Recommendations for Future Programs

Based on the project documents, student survey and KIs conducted for this study, the following recommendations are offered for future programs:

Program Management Recommendations

Engaging ATVET staff in program administration: It proved challenging to motivate ATVET staff to take ownership for the cooperative placement program and lead activities when project staff were available to implement. The vision of the project was to gradually phase out active project support; however, in reality this activity was ultimately led by ATTSVE staff throughout the project, in part due to the COVID-19 related delays near the end of the project.

A strategy to address this challenge is to work with TVET administrators from the start to incorporate responsibilities for engaging with the cooperative placement program into staff job descriptions and staff evaluations as well as to budget for staff involvement in these activities. They should specifically include in their annual budgets time for staff to supervise students and to cover costs associated with travel and per diems for monitoring the students directly. To increase accountability, MEDA recommends the development of clear evaluation documents and processes for instructors and suggested working with colleges to formally integrate cooperative placements into the evaluation portion of the curriculum for participating students. JUCAVM led the development and dissemination of an evaluation guide and recommendations on a suggested division of roles and responsibilities amongst stakeholders that could be leveraged by the participating ATVETs as well as other colleges.

Managing relationships with host institutions: Active engagement with host institutions is essential and should extend beyond the establishment of MOUs between colleges and host institutions. While regular visits were conducted by project staff, in future programs MEDA would recommend the development and implementation of a more structured vetting and on-boarding process as well as regular meetings between college administrators and placement hosts. These meetings should include an opportunity to discuss and address any challenges as well as confirm that workplace
safety protocols are followed, and students are having a positive experience. Regular feedback from participating students should be collected and actioned through surveys and debrief sessions. An important point of discussion and consideration with host institutions is a realistic understanding of their capacity to host students.

**Understanding nuances between educational institutions:** The students, delivery modality, geographic location and financial situation of the colleges targeted by this project varied substantially, particularly between Woreta and the other ATVETs. The ATVETs also differed substantially in the number and type of industry actors available in the surrounding geography, necessitating a different implementation and outreach approach as well as varying stipend levels based on the supports available to the students. Future initiatives should ensure that they have a strong understanding of the differences between ATVETs from the start of implementation and build in the flexibility to adjust implementation accordingly.

**Determining placement numbers and program size:** It is important to ensure an appropriate number of students are placed at each host organization in line with the size and capacity of the institution. During ATTSVE implementation, at times the colleges advocated for significantly increasing the number of placements; however, in a number of cases the project declined to do so to avoid expanding the program beyond the capacity of the hosts and colleges. ATVET administrators now seem to be increasingly conscious of this consideration. In 2021 KIIs multiple college administrators suggested that a smaller number of students should be placed at first to consider the capacity of the host institutions and given the number of available hosts. While many students noted in their responses that it would be great to provide this opportunity to all students, a gradual program expansion is recommended in line with ATVET and host capacity.

**Stipend Amounts:** Where possible, ATTSVE adjusted stipend amounts to account for differences in costs incurred for completing placements; however, MEDA would recommend that at the start of any cooperative placement program a fulsome assessment be conducted of anticipated financial needs of students by placement with periodic adjustments for inflation and cost of living.

**Stipend Delivery Models:** Programs delivering stipends directly to students should carefully consider and review their financial processes and procedures to ensure that students receive funds in a timely manner and an appropriate modality to cover their costs while balancing accountability and reporting requirements. As noted above, given that students often incur costs to participate in placements (rent, transportation, etc.) and many do not have an ongoing source of income, any delays in processing funding have a major financial impact directly on students, particularly those with limited financial resources.

**Financial Sustainability:** For projects including monetary stipends, it is important to consider from the beginning how these costs will be covered in the long term. MEDA held discussions with the ATVETs early on in the project to explore financial sustainability strategies, tailored to the college context. Initially, the project planned NOT to fund the final year of stipends through the project to give ATVETs the opportunity to solidify alternative financing options with project support. Ultimately, as placements could not be completed in Year 7 due to COVID-19 the project had funding to support placements in the final year and decided to continue to provide them while supporting the colleges in considering alternative funding options.

Future projects could consider not providing funding for student stipends and instead implementing activities focused on supporting colleges in finding their own sources of funding. Increased on-campus income generation through initiatives such as the MVDs should be considered as an option for self-funding and additional income generated be designated to cooperative placements in college budget requests to the government. Where support is available through external industry actors, cost-sharing arrangements with educational institutions should be formalized as part of MOUs. If providing direct funding, consider a minimum of 1-2 years of programming without stipends to test whether or not this approach is more effective in incentivizing ATVET partners and improves sustainability outcomes.
Educational Recommendations

Tracer studies: The four ATVETs targeted by the project do not currently collect data regarding the employment status of students following graduation through tracer studies. This means that it is currently not possible to compare employment rates among students who completed cooperative placements with the general student population. Although the project has continually suggested to the colleges that they should be conducting tracer studies, and provided training on how to conduct them, the colleges have remained resistant. This is due to a combination of financial reasons, and that they feel this is the responsibility of the region.

Dalhousie has employed a consultant firm to conduct a tracer study before the close of the project which will provide some data on employment rates that should be used for comparative purposes to validate the findings of this learning paper. The project continues to strongly recommend tracer studies to assist the colleges in better understanding employment trends for graduating students. Tracer studies should be budgeted for and included in annual ATVET plans and further sensitization on their importance at both the ATVET and ministry levels are strongly encouraged, leveraging the results from the project tracer study.

Alignment/leverage with government TVET Cooperative Strategy: As noted in section 3, the 2020 Ethiopian Technical and Vocational Education and Training Policy and Strategy, issued by the MoSHE, includes developing and implementing alternative models of cooperative training as a key element of its strategy and identifies specific challenges and priorities. The release of this strategy represents an opportunity for collaboration with government, particularly in the priority areas outlined in that document. Future projects should continue to engage with government in this area, leveraging this policy as well as learnings and outreach by the ATTSVE project. Interviews with government officials in 2021 noted support for continuing this program in some form and this momentum should be leveraged. In Woreta, the representative interviewed noted specifically that Woreta ATVET had brought this topic to the attention of the region for future consideration at the Bureau of Agriculture level representing an opportunity for the region of Amhara. Similar requests should be made in other regions. Lack of financial resources was noted as a barrier by all of the regional government representatives consulted, thus lessons around financial sustainability from ATTSVE will be particularly relevant to these conversations.

Integration of Cooperative Placements into the Curriculum: ATVETs should explore alternative models for integrating placements throughout the academic year. The development of these models could draw on cooperative education models previously used in the Ethiopian TVET system, Ethiopian universities which offer more extensive placements and countries with well-developed cooperative programs such as Germany and Canada. This would be an appropriate focus for future programming with ATVETs building on ATTSVE’s work in this area.
Conclusion

Cooperative training allows trainees to spend time working within enterprises/industries aligned with their field of study in order to gather knowledge, skills, experience and attitudes in an industrial environment. It is widely regarded as an effective teaching method within the TVET sector to better prepare students for entering the labour force. As explored within this paper, the cooperative placement model employed in the ATTSVE program provides additional support for the value of cooperative training in the Ethiopian ATVET sector.

While there are areas where the ATTSVE model could be improved, the overall approach of placements within industry had a demonstrated impact on practical skill acquisition for young people in support of gaining employment. While individual ATVETs can and should implement cooperative placement programs, funding and operational support from relevant government ministries to integrate cooperative placements intentionally into the curriculum is essential for their long-term success. MEDA would strongly recommend that the Ethiopian MoSHE as well as the regional TVET and agricultural offices responsible for overseeing many of the nation’s ATVETs prioritize the increased integration of cooperative training into curriculum and TVET programs. This should be done in partnership with industry and private sector while considering learnings from ATTSVE’s cooperative placement program and similar programs in Ethiopia and elsewhere.