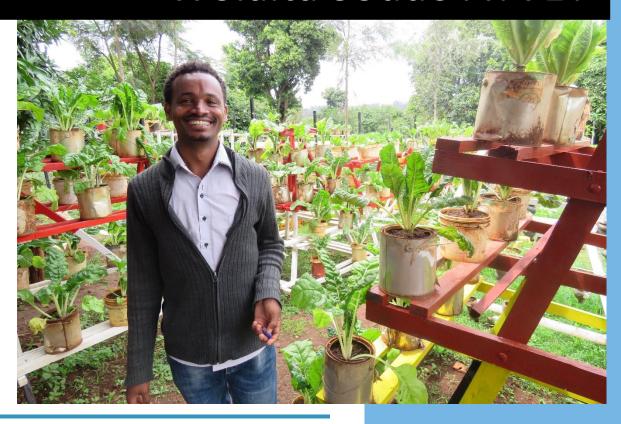


Environment Best Practices Guide - Wolaita Soddo ATVET



"Not only does the vertical farm use waste materials, but students can also get experience during practical sessions." – Abebe Torchaso, Crop and Natural Resource Farm Manager

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Introduction

The Wolaita Soddo ATVET College is in the Southern Nations, Nationalities, and Peoples Region of Ethiopia. The college initially struggled to get its environmental club and programming started, but has now quickly developed multiple initiatives on campus. The Wolaita Soddo ATVET has seen success on campus with environmental initiatives because of ATTSVE funding, college management support, and student engagement. The environmental club is happy with its current successes, but is planning for continued growth of initiatives on campus to carry its success into the future.

Need for Intervention

Before ATTSVE support, the Wolaita Soddo ATVET struggled to organize its conservational initiatives. Alemayew Gebremichael, the environment focal person at the ATVET, tried to establish an environmental club for many years, but he struggled to gain support and establish a sustainable structure for the club.

The primary areas of concern that the environmental club addresses on campus, and which were not directly addressed in terms of environmental concerns before, include waste management, student knowledge of environmentally sustainable practices, and soil erosion.

To address these issues, the environmental club has implemented multiple initiatives. The nature of these initiatives, which are education based, is one of the primary reasons for the success of the environmental programs on campus.

Reasons for Success

There are many reasons for the success of the environment initiatives at Wolaita Soddo ATVET. The environmental club has been successful because of student involvement, as well as staff and ATTSVE support. The success of the environment club can also be attributed to the kinds of initiatives which it chooses to implement, which are education based and contribute to the community and campus success. The club also actively learns from other ATVET colleges' successes to set new goals and implement new projects.

Campus Involvement

Student involvement is typically a key success factor for initiatives on campus, and this is especially true for environmental initiatives. Since the student body has such a large presence on campus, their involvement is key to the success of environmental club activities.

"We have more than enough student volunteers for our current workload," said Alemayew. The club reaches students and encourages volunteering with the club by spreading awareness of

the environmental issues which they work on. Once students are aware of the issues and understand their impacts, they choose to volunteer because they want to make a difference. Alemayew said that it is the "awareness of the issues [which] is making people want to participate in initiatives."

Students have the option to participate in activities with different levels of commitment so that everyone can feel comfortable to take part. There are opportunities as simple as showing up to a campus clean-up day, to as involved as taking part as a committee member or even chairperson on one of the three environmental club teams.

There are also training opportunities available to students through the club. Students can choose training focused on charcoal briquette production, soil & water conservation, composting, or vertical farming (see *Figure 1*) which provide relevant skills for their future employment.



Figure 1: Students gaining practical experience at the vertical farm

Environmental Club Structure

Apart from volunteering in initiatives, there are also three student teams which are part of the organizational structure of the club (*Figure 2*). These teams are responsible for the administrative activities and planning of the club, along with the Club Chairperson.

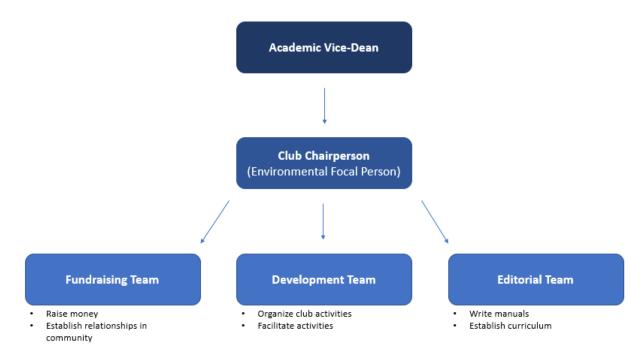


Figure 2: Wolaita Soddo Environmental Club Structure

"I tried to establish an environmental club twice before," said Alemayew, the campus' environment focal person. "This time is different because the club has a structured policy and the support of management."

Before the environment club was established, there was no specific group responsible for environmental concerns on campus. The Natural Resource Management department took on some roles informally, but did not have the time or resources to commit fully. The creation of the environment club on campus has made a huge difference to the awareness and action towards environmental issues on campus in just one year.

Having a sustainable structure where all roles are considered is a key factor in creating a club with the ability to continue operating into the future. The support of key staff members (see *Figure 3*) is critical, as well as the creation of a policy to guide the club's and the campus' activities. To create an effective policy, the environment club used supports available to them through the ATTSVE Project.



Figure 3: Key staff members of the environment club

ATTSVE Funding and Support

The ATTSVE Project has allowed the Wolaita Soddo ATVET Environment Club to establish its presence on campus by providing the supports and funding necessary to start the club. ATTSVE not only provided the funding needed for training and materials purchased at the outset of the club, but the project also provided supports and resources to the club to make its establishment as smooth as possible.

ATTSVE provided \$2500 Canadian dollars for the environmental club to provide training to key members and purchase necessary supplies.

"The club is at its current level because of ATTSVE support," said club chairperson Alemayew. "The structure has been made so that the club will last in the long term."

Guidance was provided to the club founders for the creation of a policy and a structure that are sustainable. Apart from this guidance, funds were provided for the club to purchase necessary materials and to pay for environmental training. "With this money, we are able to make a big change," said Alemayew.

Diverse and Educational Initiatives

The environmental club has built a program of activities which appeal to many different people. Not only are the activities educational by nature, they often also include the added incentive of being able to generate income in the long term.

Wolaita Soddo ATVET Environment Club Activities

- 1. College clean-up days
- 2. Plantation
- 3. Training programs
 - Soil and water conservation
 - Composting
 - Vertical Farming
 - Briquette Production

The volunteer opportunities offered on campus include planting, cleaning up waste and participating in committee meetings. Volunteering can be attractive to some students because of the low time commitment needed for activities such as the campus clean-up day. Other students are attracted to volunteer because they are passionate about the issues which the environment club is working towards solutions for. The volunteer opportunities available generally appeal to students who are interested in a low time commitment option which still allows them to make an impact on campus.



Figure 4: Charcoal briquettes produced at Wolaita Soddo ATVET alongside the raw materials

Alongside the volunteer activities available to students, there are training programs in multiple areas. These programs take anywhere from three to six days, so they require a larger time commitment from students. However, the skills that students learn during the sessions can have a longer-term impact on their lives as well as the overall practices in the area.

The skills-based education programs organized by the club have had a major impact on its overall success. Many people are interested in environmental issues but may not be able to justify spending a large amount of time on combatting these issues because of time commitments to things which will have a more direct impact on their lives. Adding the incentive of potential for income generation in the training sessions about briquette production (see *Figure 4*), vertical farming, soil and water conservation, and composting has increased the level of personal impact so that students are more likely to participate.

Perseverance

An example of the perseverance that has been shown by the environmental club can be found in the creation of the club. Alemayew tried twice before to establish an environmental club on campus, but struggled to get the student body interested. This resulted in the initial attempts at starting a club on campus being unsuccessful; however, Alemayew did not lose motivation.



Figure 5: A site where new plantations did not survive

The founder's positive attitude regarding setbacks has carried over to the club. The activities of the club were faced with obstacles, but club members put in the extra effort necessary to maximize the chances of success. The primary example of this is from when the dry season negatively affected new plantings on campus.

The new plantings struggled to survive an intense dry season, but club members put in additional volunteer hours to water plants when possible. Although some of the new plants did not survive (see *Figure 5*), many did live through the dry season because of the extra effort put in by the club. In those places where plantings did not survive, the club will be planting again in the coming years.

Learning from the Success of Others

To learn more about what kinds of initiatives can be started on campus, the Wolaita Soddo ATVET has looked outside of their community to see what is being done at the Jimma University College of Agriculture and Veterinary Medecine (JUCAVM). JUCAVM is an implementing partner of the ATTSVE Project, and the ATVET environment club decided to use this connection to learn about environment based activities on the larger university campus.

This clever use of available resources is telling of the attitudes within the environmental club which make it successful. The club and its members are not afraid to learn from not only their own struggles, as discussed in the above section, but also from the successes of others which they aspire to replicate.

Positive Outcomes

The success of the environment club has had many significant impacts on different groups on and off campus. The primary group to directly benefit is the student population, as well as the staff. The community can also benefit through the activities of the environmental club. The ATVET itself can benefit in many ways as well through initiatives and student involvement.

Students and Staff

Students are the group which can gain the most from the activities of the environmental club. The club offers education and volunteer opportunities to students which allow students to develop skills and broaden their knowledge of local and global issues.

On top of increasing understanding of environmental issues, students can develop skills which will aid them in generating income using environmentally sensitive methods. Students may benefit long after training through environment club activities with increased income

generation. The training offered can also improve the practices which students may practice in their businesses in the future, for example regarding land erosion. Students who have done training at the land degradation demonstration site on campus (see *Figure 6*) can implement more sustainable farming techniques in terms of the preservation of soil integrity.

On a more immediate level, both staff and students can benefit from a cleaner and greener campus. Given that many of the students and staff live on campus, this could directly impact their satisfaction with their living situation. In the long term, the sense of pride of students and staff could be impacted in a positive way.



Figure 6: Soil erosion prevention method, as constructed by students during training

Community

The positive impact on students will carry over to impact the community in which the Wolaita Soddo ATVET operates. Students will carry over their learning into their activities within the community and will also share their knowledge about the practices learned on campus.

Students who have completed training in any of the four possible areas can not only generate income for themselves but can also contribute to the local economy through business. The vertical farming (see *Figure 7*) and briquette production training will allow members of the community who did not believe they had enough land before to contribute to the local marketplace.



Figure 7: An employee at the vertical farm training center on campus

The training offered through the environment club is currently only offered to students because of limited supervision and financial resource constraints; however, the club would like to expand the training in the future to include sessions available to community members. The club's fundraising team aims to increase community involvement with environmental initiatives in the coming years.

ATVET

The ATVET has the potential to benefit from activities in a few different ways. The ATVET will see increased and improved greenspace (see *Figure 8*), which will improve the overall image of the campus. Alongside the new plantings on campus, the image will also be improved by the clean-up days and increased awareness of keeping a clean campus. Through the ATTSVE Program, waste bins have been provided for every office on campus to reduce litter.

In the longer term, the environment club will be working to improve the waste management system on campus. In the coming years, the club would like to implement a sorting system for waste (to separate recyclables) and would like to build an incinerator on campus to avoid waste build-up.



Figure 8: New plantings on campus

The Wolaita Soddo ATVET campus has already seen increased student engagement through environment club activities, and this trend should continue into the future as the environment club maintains initiatives and opportunities on campus. Overall, the positive impact of the club can be expected to grow as the club becomes more established on the ATVET campus.

Going Forward

The success of the environmental initiatives on campus is impressive after just one year of operations for the environmental club; however, the future success of the club and the environment initiatives at the ATVET depend on planning for the future. Potential future challenges, as well as aims, should be considered to maximize the potential for success. Potential things to consider going forward include funding, natural factors and participation.

Funding provided by ATTSVE for the environment club will end at the end of the project term (in 2019). The environment club should consider potential funding sources now to be able to establish relationships and secure funding. If funding is secured earlier rather than later, the club will be able to continue activities uninterrupted.

Natural factors to consider are largely in regard to the reforestation and plantation efforts at Wolaita Soddo ATVET. The first year of the environmental club saw a very long and intense dry season, which negatively affected new plantings. The environment handled the situation well and should use their experience and learning to fuel their success in the coming years.

The final challenge which may potentially to face the environment club in the future is the level of participation on campus. The current participation rates are high, so the club does not have a great need to encourage participation in initiatives. It is not certain to happen, but the club should be aware that participation rates have the potential to fluctuate. The environment club should continue to check in on participation and adjust advertisement of programming and programming itself as needed.

Conclusion

The environment club has had a fruitful first year at Wolaita Soddo ATVET College. The successes of the club can be attributed to key factors such as student involvement, club structure, ATTSVE support, and education based initiatives, among others. The diverse volunteer and training opportunities available to students allow for people with multiple commitment levels to participate in club initiatives. These initiatives can benefit students and staff on campus, the community and the ATVET as a whole. The students who participate in initiatives can gain skills and knowledge which have the potential to generate income. The community can benefit indirectly from this income-generating, sustainable activities. The ATVET can also benefit from the environmental activities on campus with a cleaner campus and more engaged students. The successes of the club have been substantial for the first year of activities and can be continued through a forward-thinking outlook.