GreenVETAfrica

GreenVETAfrica project is co-funded by the

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D3.2 Train the Trainers Report

Version: 1.0

Work package	WP 3
Task	3.1
Due date	29/02/2024
Submission date	04/03/2024
Deliverable lead	Presbyterian Relief Services and Development (PRSD)
Version	1.0
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Abstract	This deliverable intends to present the GVA training course that involved over 50 VET teachers in Nigeria and Ghana, highlighting the activities carried out as well as the trainers' feedback and evaluation of the programme.
Keywords	Train the Trainers, pedagogical skills, green waste management, entrepreneurship, digital pedagogy, remote expert solution

Document Revision History

VERSION	DATE	DESCRIPTION OF CHANGE	LIST OF CONTRIBUTORS
0.1	19.92.2024	First draft	Anthony Sarkodie (PRSD)
0.2	20.02.2024	Integrations	Patrick Quayson (WA)
0.3	24.02.2024	Internal review	Iva Perkovic (MUNDUS)
0.4	28.02.2024	Integrations	Claudia Gioitti (AREA)
0.5	29.02.2024	Integrations	Patrick Quayson (WA), Iva Perkovic (MUNDUS)
0.6	01.03.2024	Integrations, corrections	Claudia Gioitti (AREA)
0.7	02.03.2024	Final review	Adriano Mauro (AREA)

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EXECUTIVE SUMMARY

The Train the Trainers program under the GreenVETAfrica project has been a transformative initiative aimed at equipping participants with the knowledge, skills, and pedagogical tools necessary to drive environmental education and entrepreneurship within their communities. Spanning multiple modules and workshops, the program has fostered collaboration, innovation, and capacity-building among trainers from diverse vocational disciplines and educational backgrounds.

Throughout the program, participants engaged in a rigorous curriculum covering topics such as pedagogical upskilling, digital pedagogy, remote expert solutions, green waste management, micro-entrepreneurship, and more. Through a combination of theoretical instruction, practical exercises, and experiential learning, trainers gained invaluable insights and hands-on experience to effectively deliver training programs and foster sustainable development.

The validation workshop served as a pivotal moment for gathering feedback from trainers, with participants divided into small groups to discuss and provide feedback. This feedback collection methodology yielded valuable insights into the program's strengths, areas for improvement, and recommendations for future enhancements. Trainers highlighted the relevance of the training content, the effectiveness of teaching methodologies, and the importance of hands-on learning experiences in enhancing their pedagogical skills and environmental knowledge.

Moving forward, the insights and recommendations gathered from trainers will inform future programmatic decisions, ensuring that the Train the Trainers program continues to evolve and meet the changing needs of participants and stakeholders. By fostering a community of empowered trainers committed to environmental education and entrepreneurship, GreenVETAfrica is poised to make a lasting impact on sustainable development in Ghana, Nigeria, and beyond.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

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ABBREVIATIONS

IIT	Institute for Industrial Technology
LAWMA	Lagos State Waste Management Authority
MSMEs	Micro Small and Medium Enterprises
PAUF	Pan Atlantic University Foundation
ToT	Train the Trainers
VTI	Vocational Technical Institute
WP	Work Package

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1 INTRODUCTION

In the realm of environmental conservation and sustainable development, education stands as a cornerstone for fostering meaningful change and empowering communities to embrace environmentally responsible practices. Recognising the urgent need for capacity-building initiatives in this critical domain, GreenVETAfrica embarked on a capacity building journey to cultivate a cadre of proficient trainers equipped with the knowledge, skills, and passion to lead transformative environmental education efforts across the continent.

The Train the Trainers program, carried out by Work Package 3 of the GreenVETAfrica project, represents a dynamic and collaborative endeavour aimed at nurturing a network of skilled educators committed to advancing environmental stewardship and sustainability. Rooted in the principles of experiential learning and participatory pedagogy, this program seeks to harness the collective expertise of trainers to catalyse positive change and inspire action at the grassroots level. Through a comprehensive curriculum encompassing a diverse array of topics ranging from waste management and climate change mitigation to biodiversity conservation, the Train the Trainers program equips participants with the requisite knowledge and pedagogical tools to effectively engage diverse audiences and facilitate transformative learning experiences.

By fostering a deep understanding of environmental challenges, promoting critical thinking, and instilling a sense of stewardship, this program empowers trainers to cultivate a new generation of environmentally conscious citizens poised to address pressing global issues. Moreover, the Train the Trainers program is not merely about disseminating information; it is about fostering a culture of collaboration, innovation, and continuous learning. Through interactive workshops, peer-to-peer exchanges participants are encouraged to share best practices, co-create solutions, and forge enduring partnerships aimed at driving collective action for environmental sustainability. From exploring innovative teaching methodologies to examining real-world case studies and success stories, this report serves as a testament to the transformative potential of environmental education and the indomitable spirit of those dedicated to safeguarding our planet for future generations. Together, let us embrace the ethos of sustainability, harness the power of education, and embark on a shared journey towards a greener, more equitable, and resilient future for all.

1.1 BACKGROUND

Africa's environmental future depends on the hearts and minds of its citizens. That's why GreenVETAfrica has launched a project to empower a new generation of environmental champions. We're starting with the people who shape young minds and inspire community action – the trainers and educators.

We understand that knowledge is the driving force behind sustainable change. Our Train the Trainers program is a lifeline for African educators, providing them with the resources and skills to teach future generations about crucial environmental issues. We offer pedagogical upskilling, innovative digital teaching tools, and even remote expert solutions to bring the best minds to any classroom. Our curriculum empowers teachers to deliver lessons that resonate, covering green waste management technical foundations, digital pedagogy, and the foundations of micro-entrepreneurship for MSMEs.

GreenVETAfrica isn't just about building classrooms; it's about building a movement. Educators in our program become part of a vibrant community, fuelled by knowledge sharing and the spirit of collaboration. We want every participant to leave our program brimming with ideas, feeling supported, and ready to inspire the next wave of environmental leaders.

This project is more than education; it's about a brighter future. With the support of our partners and a belief in the immense potential of Africa's people, we're helping communities across the continent become leaders in sustainability. With every educator empowered and every student inspired, GreenVETAfrica drives transformation – the kind that protects our planet and fosters a greener, more just future for all.

2 TRAINING CONTENT

The GreenVETAfrica Train the Trainers program is structured around five comprehensive modules aimed at equipping participants with the knowledge, skills, and pedagogical tools necessary to deliver effective environmental education and entrepreneurship training. Each module is designed to address key thematic areas and incorporate innovative teaching methodologies to enhance learning outcomes.

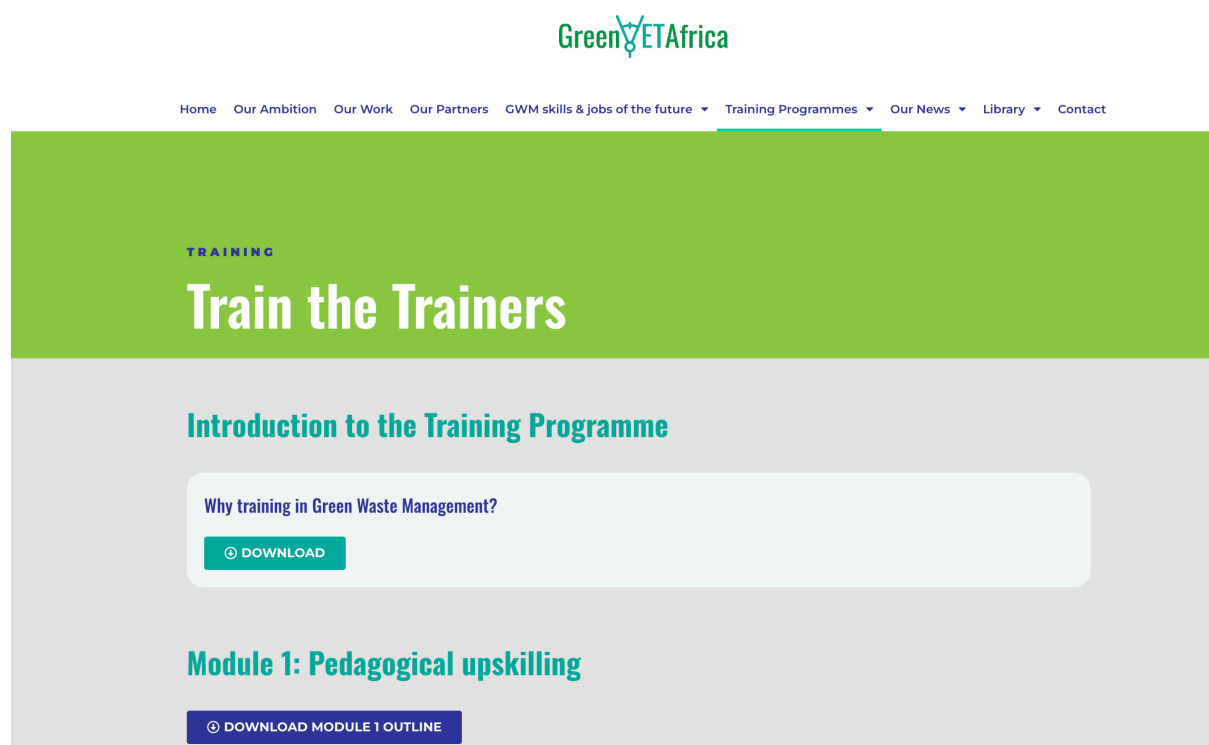The modules can be accessed on the project's website https://greenvetafrica.eu/train-the-trainers/

FIGURE 1 SCREENSHOT OF GREENVETAFRICA WEBSITE AREA WITH THE TRAIN THE TRAINERS MODULE

2.1 MODULES OVERVIEW

- **Module 1: Pedagogical Upskilling.** This module focuses on enhancing participants' pedagogical skills through a competence-based approach and the dual system of education. Participants learn about individualised learning paths tailored to the needs of diverse learners. Emphasis is placed on the integration of work-based learning (WBL) principles to provide practical, hands-on experiences that reinforce theoretical knowledge.

- **Module 2: Digital Pedagogy.** In this module, participants explore the use of digital tools and technologies to enhance teaching and learning experiences. Topics covered include creating and sharing digital learning content, evaluating cooperative learning activities, and implementing the flipped classroom model. Participants also learn about the main features, categories, and potential of educational technologies, as well as the role of technology in facilitating effective teaching practices.

- **Module 3: Remote Expert Solutions.** This module delves into the utilisation of remote expert solutions to facilitate learning and collaboration in virtual environments. Participants explore various tools and platforms for remote communication, collaboration, and knowledge sharing. Practical strategies for engaging learners and delivering effective remote training sessions are emphasised, along with best practices for leveraging technology to overcome geographical barriers and enhance accessibility.

○ **Module 4: Green Waste Management Technical Foundations.** Participants gain a comprehensive understanding of waste management principles and practices in this module. Topics covered include an introduction to the environment and waste management, waste management hierarchy and recycling, organic waste management, waste disposal and treatment methods, circular economy principles, green job opportunities, and health, safety, and environmental considerations. Additionally, participants learn about the equipment and machinery used in waste management, as well as the electrical systems involved in waste processing.

○ **Module 5: Foundations of micro-entrepreneurship for MSMEs.** This module provides participants with essential knowledge and skills for fostering entrepreneurship and micro-enterprise development in the environmental sector. Topics covered include creativity and problem-solving, introduction to entrepreneurship, opportunity analysis, market research techniques, business model development, business finance fundamentals, and pitching strategies. Participants gain practical insights into identifying viable business opportunities, developing sustainable business models, and accessing resources to launch and grow micro-enterprises focused on environmental sustainability. Through a combination of theoretical instruction, practical exercises, case studies, and interactive discussions, participants in the GreenVETAfrica Train the Trainers program are equipped with a holistic understanding of environmental education and entrepreneurship. By mastering the content covered in these modules, participants are empowered to deliver high-quality training programs that inspire action, foster innovation, and drive positive change in their communities and beyond.

2.2 CURRICULUM STRUCTURE

The curriculum structure of the GreenVETAfrica Train the Trainers program is meticulously crafted to provide participants with a robust foundation in environmental education and entrepreneurship. Comprising five comprehensive modules, this curriculum adopts a progressive approach, guiding participants through a transformative learning journey that equips them with the knowledge, skills, and confidence to drive positive change in their communities and beyond.

○ **Foundation Modules: Building Pedagogical and Environmental Fundamentals.** The curriculum commences with foundational modules aimed at establishing a solid understanding of pedagogical principles and environmental concepts. In Module 1, Pedagogical Upskilling, participants are introduced to competence-based approaches and the importance of individualised learning paths, laying the groundwork for effective training delivery. Concurrently, Module 4, Green Waste Management Technical Foundations, provides participants with essential knowledge of environmental sustainability, waste management principles, and circular economy practices, forming the cornerstone of their environmental expertise.

○ **Digital Upskilling: Advancing Pedagogy and Remote Training Solutions.** As participants progress through the program, they transition to advanced modules aimed at enhancing their digital pedagogy and remote training skills. Module 2, Digital Pedagogy, delves into innovative teaching methodologies and the integration of digital technologies into training programs. This equips participants with the tools to engage learners dynamically and interactively, exploring techniques to leverage multimedia content and online platforms effectively. Meanwhile, Module 3, Remote Training Solutions, addresses the evolving landscape of education delivery by focusing on leveraging technology for effective virtual learning experiences. Participants learn practical strategies to facilitate remote training sessions, including utilising remote communication tools, fostering collaboration, and delivering engaging virtual training sessions. This specialised module equips participants to navigate the challenges of remote training while harnessing the benefits of flexible and accessible learning opportunities.

○ **Practical Application: Bridging Theory and Practice.** Throughout the curriculum, emphasis is placed on practical application and experiential learning. Participants engage in hands-on workshops and group activities enabling them to apply theoretical concepts to real-world scenarios. By immersing themselves in practical exercises, participants develop critical thinking skills, problem-solving abilities, and the confidence to tackle complex environmental challenges and entrepreneurial endeavours with creativity and resilience.

- **Integration and Synthesis: Consolidating Learning and Driving Impact**. The curriculum culminates in integration and synthesis activities designed to consolidate learning and facilitate knowledge transfer. Participants have the opportunity to showcase their newfound knowledge and skills through project-based assignments, presentations, and collaborative initiatives. By synthesising their learning experiences and applying them to practical challenges, participants demonstrate their readiness to lead transformative initiatives that promote environmental sustainability, economic empowerment, and social change within their communities.

The curriculum structure of the GreenVETAfrica Train the Trainers program embodies a holistic and progressive approach to capacity-building in environmental education and entrepreneurship. By providing participants with a comprehensive foundation, advanced skills, specialised knowledge, practical experience, and opportunities for integration and synthesis, the curriculum empowers them to become effective agents of change, driving sustainable development and creating a brighter future for generations to come.

3 ATTENDANCE

3.1 PARTICIPANTS DEMOGRAPHICS

The Train the Trainers program within the GreenVETAfrica project convenes a diverse group of participants, reflecting varied backgrounds, educational achievements, and vocational disciplines. This amalgamation of individuals from different walks of life contributes to a rich learning environment, fostering collaboration and exchange of perspectives.

o   **Educational Backgrounds.** Participants in the program boast a range of educational qualifications, spanning from diplomas to master's degrees. They bring with them a wealth of knowledge acquired through diverse academic journeys.

o   **Vocational Disciplines.** The participants represent an array of vocational disciplines, including but not limited to electrical engineering technology, fashion designing technology, hospitality and catering, building construction, natural resources management, and management. Each trainer brings a unique skill set and professional background to the program, enriching the collective learning experience with their diverse perspectives and expertise.

o   **Institutional Affiliations.** Trainers from Ghana are affiliated with esteemed vocational training institutions such as Presby SHS, Ramseyer VTI, Kumasi VTI, Opoku Ware VTI, and St Joseph VTI. These institutions are renowned for their commitment to vocational education and training, shaping the careers of countless individuals across Ghana. Meanwhile, participants from Nigeria hail from institutions including LAWMA, IIT, and PAUF, which are instrumental in driving vocational training and sustainable development initiatives within the Nigerian context. The participants/trainers in the Train the Trainers program represent a mosaic of backgrounds, programs, and institutions, united by their shared passion for environmental education and entrepreneurship. Their diverse educational achievements, vocational disciplines, and institutional affiliations underscore the program's inclusive ethos and commitment to fostering collaboration across borders in pursuit of sustainable development goals.

3.2 ATTENDANCE RECORDS

The attendance record of trainers during the Train the Trainers program provides valuable insights into the level of engagement and participation in the training sessions. Throughout the duration of the program, diligent monitoring of attendance was conducted to assess trainers' commitment to their professional development and capacity-building efforts.

During the course of the program, it was observed that some trainers occasionally joined the class using the same device, leading to discrepancies in attendance records. While efforts were made to accurately track attendance, such occurrences occasionally posed challenges in accurately recording individual participation. Nonetheless, measures were implemented to mitigate these issues and ensure that trainers received proper credit for their attendance and participation in the training sessions.

Some trainers faced challenges participating fully in the training due to internet connectivity issues, which hindered their ability to access online sessions consistently. Additionally, conflicting engagements and obligations clashed with our class schedules, limiting their availability for training sessions. Furthermore, a few trainers were unavailable as they had to travel during certain periods, contributing to their reduced participation in the program.

Despite variations in daily attendance, the overall commitment and dedication of the 60 trainers that enrolled in the ToT were evident, with a considerable number of participants actively engaging in the training activities and discussions, reaching an overall attendance participation above 50%. More precisely, of the 60 trainers that

completed the programme, the ones having attended at least 70% of the training sessions, namely 41, received the certificates of attendance, which is a requirement for them to actively participate in the next phase of experimentation with the students. The ultimate criterion for selecting trainers for the pilot phase was based on the evaluation process, during which 37 out of 41 participants successfully met the requirements. Specifically, 19 participants from Nigeria, while 18 were from Ghana.

4 TRAINERS FEEDBACK

4.1 FEEDBACK COLLECTION METHODOLOGY

The GreenVETAfrica project places great importance on gathering feedback from trainers to continually improve the effectiveness and relevance of its training programme. To ensure comprehensive feedback collection, a validation workshop was organised both in Ghana and Nigeria, providing trainers with an opportunity to share their insights, perspectives, and recommendations.

During the validation workshop, trainers were divided into small groups comprising 4-5 members per group. This facilitated focused discussions and allowed for in-depth exploration of key themes and issues. Each group was tasked with providing feedback on a questionnaire specifically developed for this purpose, with the aim of capturing trainers' experiences, challenges, and suggestions for improvement.

The questionnaire used to collect feedback was meticulously crafted by Mundus, drawing upon their expertise in monitoring and evaluation. It encompassed a range of topics, including the relevance of training content, the effectiveness of teaching methodologies, logistical arrangements, and overall satisfaction with the program. Trainers were encouraged to provide candid and constructive feedback, highlighting both positive aspects and areas for enhancement.

Throughout the workshop, facilitators guided group discussions, ensuring that all participants had the opportunity to contribute their perspectives. Trainers engaged in lively exchanges, sharing their experiences, challenges, and best practices. The collaborative nature of the workshop fostered a sense of camaraderie and mutual support among participants, strengthening the bonds within the GreenVETAfrica community. By leveraging the collective wisdom and insights of trainers, the feedback collection methodology employed during the validation workshop yielded valuable data and actionable recommendations. This feedback will be carefully analysed and used to inform future programmatic decisions, with the ultimate goal of enhancing the impact and relevance of GreenVETAfrica's training initiatives.

4.2 FEEDBACK FROM TRAINERS

The feedback from trainers in both Ghana and Nigeria provides valuable insights into their experiences and perceptions of the Train the Trainers program. The feedback, categorised according to the questionnaire topics, sheds light on trainers' overall satisfaction, appreciation for specific aspects of the program, knowledge gained, application of learning, readiness to teach, areas of improvement, and reflections on facilitators and training materials.

4.2.1 Feedback from Ghanaian trainers

Overall Satisfaction and General Impressions. Participants from Ghana overwhelmingly admitted that the program was highly satisfactory and impactful. They expressed that the training enhanced their knowledge and learning abilities significantly, highlighting the program's effectiveness in achieving its objectives.

Appreciation of Specific Aspects. Trainers appreciated various aspects of the program, including the opportunity to learn new teaching and learning methodologies. They particularly valued the concept of individual learning paths and found it intriguing. Additionally, they commended facilitators for their responsiveness, interactive teaching styles, and the inclusion of an evaluation workshop as part of the program activities.

Most Important Knowledge Gained. Participants identified several key areas of knowledge gained, including creativity, classroom management, waste management, sustainability, and recycling. These topics were

perceived as essential for enhancing their teaching practices and promoting environmental awareness among their students.

Application of Knowledge to Teaching Practice. Trainers expressed their intention to apply the knowledge gained from the training to their teaching practice, particularly emphasising the importance of patience and creativity in incorporating new methodologies into their routines. They highlighted the potential benefits of embracing concepts such as the circular economy in their educational endeavours.

Application of Knowledge in Professional Practice. Respondents affirmed that they had already begun applying the knowledge gained from the training in both their professional practice and personal lives. Examples included integrating creativity into lesson planning, managing finances effectively, implementing green waste management practices, and applying entrepreneurship principles.

Readiness to Teach. All groups indicated their readiness to teach their students about the topics covered in the training, citing competency-based training, creativity and problem-solving, and classroom management as areas of expertise. They expressed confidence in their ability to transfer their newfound knowledge to their students effectively.

Likes, Dislikes, and Recommendations. Trainers appreciated various aspects of the training, including its interesting nature, the knowledge gained through e-learning, and the provision of internet data allowances. However, some groups expressed dissatisfaction with the lack of feedback on submitted assignments and suggested that face-to-face classes would enhance the learning experience.

Facilitators' Performance. Participants praised facilitators for their interactive teaching styles, subject matter expertise, tolerance, and control over the class. They acknowledged the facilitators' contributions to their learning experience and expressed satisfaction with their overall performance.

Training Materials. Trainers found the training materials to be presentable, easy to use, and comprehensible. They deemed the materials useful for the learning process and did not suggest any significant changes.

Additional Feedback and Comments Trainers shared additional feedback and comments, including challenges with network connectivity and language barriers due to accents. However, they expressed strong motivation to progress to the next stage of the program, underscoring their commitment to their professional development journey.

Overall, the responses from the Ghanaian trainers reflect a high level of satisfaction with the Train the Trainers program, coupled with constructive feedback for improvement. Their insights will inform future iterations of the program, ensuring its continued relevance and effectiveness in empowering trainers to drive positive change within their communities.

4.2.2 Feedback from Nigerian trainers

Overall Satisfaction and General Impressions. Nigerian trainers expressed satisfaction with the training, deeming it insightful and valuable. They acknowledged the program's capacity to broaden their understanding of pertinent topics such as waste management and the circular economy. However, they raised concerns regarding network challenges and the need for improved access to learning management systems.

Appreciation of Specific Aspects. The trainers appreciated the multidisciplinary nature of the modules, finding them intellectually stimulating. They particularly valued discussions on topics like green jobs, recycling, entrepreneurship, and the flipped classroom. However, some trainers found assignments overly burdensome, suggesting a need for more manageable workload distribution.

Most Important Knowledge Gained. Participants identified competency-based learning, waste management, sustainability principles, and the circular economy as the most crucial knowledge gained from the training. They recognised the significance of these concepts in their professional practice and personal lives.

Application of Knowledge to Teaching Practice. Trainers expressed their intention to apply the knowledge gained from the training to their teaching practice and professional roles. They highlighted plans to incorporate competency-based learning strategies, waste management principles, and sustainable practices into their curriculum and daily routines.

Application of Knowledge in Professional Practice. Respondents affirmed that they had begun applying the knowledge acquired from the training in various aspects of their professional practice and personal lives. Some mentioned the adoption of speech-to-text apps to enhance productivity, while others integrated sustainability principles into their workplace routines.

Readiness to Teach. All groups indicated readiness to teach topics covered in the training, despite some reservations about the sequential nature of modules. Trainers expressed confidence in their ability to deliver engaging and informative sessions on competency-based learning, recycling, and other relevant topics.

Likes, Dislikes, and Recommendations. Trainers appreciated the facilitators' depth of knowledge, patience, and emotional intelligence, which enhanced their learning experience. However, they expressed dissatisfaction with the lack of incentives to purchase internet data and the timing of classes conflicting with office duties. Some also found certain training materials, such as competence-based pedagogy and augmented reality, less self-explanatory.

Facilitators' Performance. Participants praised facilitators for their engaging teaching styles and subject matter expertise, which contributed significantly to their learning journey. They valued the opportunity to access playback of classes, enabling them to revisit and reinforce their learning.

Training Materials. Trainers found the training materials presentable and easy to use, but some suggested improvements to enhance clarity and comprehensibility, particularly in complex topics such as competence-based pedagogy and augmented reality.

Additional Feedback and Comments. Participants raised concerns about language barriers, particularly related to accents, which sometimes hindered their understanding of facilitators' instructions. They suggested shorter modules and class durations to improve engagement and retention.

The feedback from Nigerian trainers provides valuable insights into the strengths and areas for improvement of the Train the Trainers program. Their feedback will inform future program iterations, ensuring continued relevance and effectiveness in empowering trainers to drive positive change within their communities.

5 TRAINERS EVALUATION

As mentioned in Section 3.2, the teachers who participated in at least 70 per cent of the training programme, received a certificate of attendance and moved on to the evaluation phase. During the validation and evaluation workshop, trainers were assessed using a comprehensive set of criteria to gauge their performance and effectiveness in delivering training sessions. The evaluation criteria encompassed various aspects, including content relevance and depth, clarity and organisation, engagement and interaction, use of visual aids or technology, and overall effectiveness.

- **Content Relevance and Depth.** Trainers were evaluated based on the relevance of their chosen micro topics and the depth of their understanding and analysis. This criterion assessed the alignment of the training content with the objectives of the program and the trainers' ability to delve into key concepts.

- **Clarity and Organisation.** The clarity and organisation of trainers' presentations were crucial in ensuring effective communication of concepts. This criterion evaluated the structure and flow of their sessions, assessing the coherence of their explanations and the clarity of their delivery.

- **Engagement and Interaction.** Trainers were expected to engage their audience effectively and encourage interaction throughout their sessions. This criterion assessed their ability to captivate the audience's attention, foster participation, and facilitate meaningful discussions.

- **Use of Visual Aids or Technology.** Effective use of visual aids and technology played a vital role in enhancing the learning experience. Trainers were evaluated on their ability to integrate visual elements and technology seamlessly into their presentations to support comprehension and retention of key concepts.

- **Overall Effectiveness.** The overall effectiveness of trainers' sessions was assessed based on their ability to convey key messages, create a conducive learning environment, and leave a lasting impression on the audience. This criterion encompassed the holistic impact of their presentations on the participants.

Trainers were rated on a scale of 1 to 5 for each criterion, with higher scores indicating greater proficiency and effectiveness in delivering training sessions. The evaluation criteria served as a comprehensive framework for assessing trainers' performance and providing constructive feedback to support their professional development.

5.1 TRAINERS PERFORMANCE

Trainers' performance during the validation and evaluation workshop was meticulously assessed by a panel of experts. Each of the 41 trainers was scored out of 50 based on their adherence to the evaluation criteria and their overall effectiveness in delivering training sessions. The panellists meticulously evaluated trainers' presentations, considering factors such as content relevance, clarity of communication, engagement with the audience, and utilisation of visual aids or technology.

The average of the panellists' scores was computed to represent the overall performance of each trainer out of 50. This aggregated score provided a comprehensive assessment of trainers' proficiency and effectiveness in facilitating training sessions. Trainers who scored higher demonstrated a deeper understanding of the subject matter, clear communication skills, and the ability to engage and inspire their audience effectively.

Figures 2 and 3 below illustrate the performances of the trainers out of 50, providing a visual representation of their strengths and areas for improvement. This graphical representation enables stakeholders to easily identify trends, compare performances, and make informed decisions regarding further training and support.

Overall, the evaluation process made it possible to identify the trainers who were up to the task of carrying out the two pilots with the students. More precisely, 18 Ghanaian trainers out of 20 and 19 Nigerian out of 21 successfully met the requirements.

The trainers' performance assessment serves as a valuable tool for identifying strengths, addressing weaknesses, and enhancing the overall quality of training delivery within the GreenVETAfrica project. By providing targeted feedback and support, the program aims to empower trainers to continually improve their performance and make a meaningful impact in their respective fields.
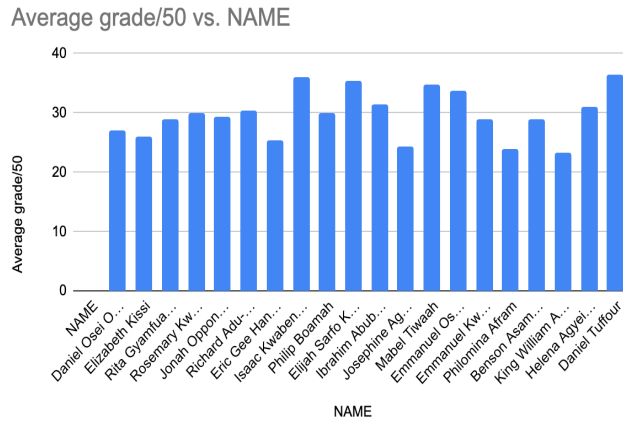
Average grade/50 vs. NAME

FIGURE 2 A CHART INDICATING THE PERFORMANCE OF GHANAIAN TRAINERS (/50)
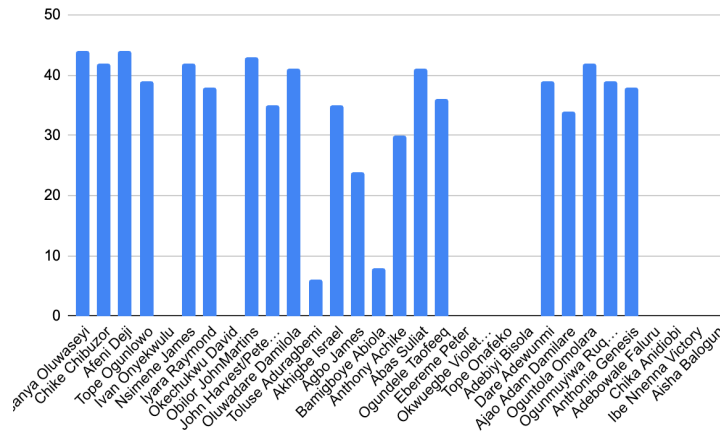

FIGURE 3 A CHART INDICATING THE PERFORMANCE OF NIGERIAN TRAINERS (/50)

6 PROGRAM OUTCOMES AND RECOMMENDATIONS

6.1 IMPACT ASSESSMENT

The Impact Assessment of the Train the Trainers program serves as a critical component in evaluating the effectiveness and overall success of the initiative. Through rigorous evaluation methodologies, including feedback collection, performance assessments, and participant surveys, the program's impact on trainers' skills, knowledge, and teaching methodologies is comprehensively analysed.

The assessment encompasses various dimensions, including the acquisition of new skills and competencies, the application of learning in professional practice, and the enhancement of teaching effectiveness. Trainers' feedback, coupled with performance evaluations, provides valuable insights into the program's strengths and areas for improvement, guiding future iterations and enhancements.

Additionally, the impact assessment considers broader outcomes, such as the program's contribution to sustainable development goals, environmental conservation efforts, and the promotion of entrepreneurship and innovation in vocational education. By assessing the tangible outcomes and societal implications of the program, stakeholders gain a deeper understanding of its long-term significance and transformative potential.

Impact assessment will be implemented in the second year of the project implementation, and it is foreseen for the last semester of 2024. The assessment will be implemented with participants of ToT minimum 6 months after the training implementation, in order to be able to analyse the changes and the real impact of the training. This will be done by doing interviews with participants in order to detect success stories, as well as a short questionnaire which will provide us with some statistical data. Success stories will be recorded in the final Impact assessment report and included in the final project report.

6.2 RECOMMENDATIONS

Based on the insights gleaned from the Train the Trainers program and the valuable feedback provided by participants, the following recommendations are proposed to enhance the efficacy and sustainability of future iterations:

Internet Data Support. Recognising the challenges faced by participants in accessing online resources due to limited internet connectivity or data constraints, it is recommended to provide support in the form of internet data subsidies or allowances. This would ensure equitable access to online materials and facilitate active engagement in virtual training sessions.

Increased In-Person Meetings. Responding to trainers' preferences for face-to-face interactions and the perceived benefits of in-person meetings, incorporating more in-person workshops, seminars, and training sessions into the program schedule is recommended. These opportunities for direct engagement and networking can enhance learning outcomes and foster a sense of community among participants.

Flexible Training Formats. Acknowledging the diverse learning preferences and professional commitments of trainers, offering flexible training formats, including blended learning approaches that combine online modules with in-person sessions, can cater to varying needs and schedules. This flexibility allows participants to customise their learning experience and maximise their engagement with the program.

Enhanced Technical Support. Addressing the technical challenges encountered by participants during online sessions, it is recommended to provide comprehensive technical support services, including troubleshooting

assistance, user-friendly interfaces, and clear instructions for accessing online platforms. This ensures seamless participation and minimises disruptions caused by technical issues.

Regular Feedback Mechanisms. Establishing regular feedback mechanisms to solicit input from participants on program content, delivery methods, and overall satisfaction is essential for continuous improvement. Implementing surveys, focus group discussions, and evaluation forms allows for ongoing monitoring and adjustment of program components to better meet the needs of trainers.

6.3 FURTHER TRAINING NEEDS

Drawing from the identified gaps in knowledge and skills highlighted by participants, the following areas for further training and professional development are recommended:

Pedagogical Training. Offering specialised training in advanced pedagogical techniques, such as competency-based learning, differentiated instruction, and active learning strategies, can enhance trainers' teaching effectiveness and learner engagement.

Technology Integration. Providing training in the effective integration of educational technologies, including learning management systems, multimedia resources, and virtual collaboration tools, enables trainers to create dynamic and interactive learning experiences that align with current pedagogical trends.

Cultural Competency. Offering training in cultural competency and diversity awareness equips trainers with the knowledge and skills to effectively engage with learners from diverse backgrounds and create inclusive learning environments.

Professional Networking. Facilitating opportunities for professional networking and collaboration enables trainers to exchange best practices, share resources, and stay informed about industry trends and developments, fostering a culture of continuous learning and innovation.

By implementing these recommendations and addressing further training needs, the Train the Trainers program can enhance its impact and effectiveness, empowering vocational trainers to excel in their roles and contribute to the advancement of vocational education and workforce development.

7 CONCLUSION

The Train the Trainers program has been a transformative journey, empowering vocational educators from Ghana and Nigeria with the knowledge, skills, and resources needed to drive positive change within their respective fields. Through a comprehensive curriculum, interactive training sessions, and ongoing support mechanisms, participants have gained valuable insights into pedagogical best practices, technological innovations, and sustainable development principles.

The feedback collected from trainers underscores the program's impact, with participants expressing appreciation for the engaging content, supportive learning environment, and practical relevance of the training. While challenges such as internet connectivity issues and technical limitations have been identified, the program has demonstrated resilience in overcoming these obstacles and adapting to the evolving needs of participants.

Moving forward, the recommendations outlined in this report offer valuable insights for enhancing the effectiveness and sustainability of future iterations of the program. By incorporating feedback mechanisms, providing tailored support services, and addressing further training needs, the Train the Trainers program can continue to empower vocational trainers as agents of change and innovation in vocational education and workforce development.

As we reflect on the achievements and lessons learned from this journey, we are inspired by the dedication, passion, and commitment demonstrated by all participants. The Train the Trainers program represents a collaborative effort to build a brighter future for vocational education in Africa, and we look forward to continuing this journey together.

ANNEX 1– TRAINING SCHEDULE

TABLE 1 TRAIN THE TRAINERS SCHEDULE

Unit	Activity / Training title	Date	N. of Hours	Method description	Learning environment	N. of Participants
Competence-Based Approach	Module 1	16 Oct	2 hrs 3-5pm CET + 2 hrs individual work	2 hrs online + 2 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Digital Pedagogy	Module 2	17 Oct	2 hrs 3-5pm CET + 2 hrs individual work	2 hrs online + 2 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Dual system and WBL	Module 1	18 Oct	2 hrs 3-5pm CET + 2 hrs individual work	2 hrs online + 2 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Competence Based approach	Module 1	20 Oct	2 hrs 3-5pm CET + 2 hrs individual work	2 hrs online + 2 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Dual system and WBL	Module 1	24 Oct	2 hrs 3-5pm CET + 2 hrs individual work	2 hrs online + 2 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Digital Pedagogy	Module 2	26 Oct	3 hrs 3-6pm CET + 1h individual work	3 hrs online + 1 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Digital Pedagogy	Module 2	31 Oct	3 hrs 3-6pm CET + 1h individual work	3 hrs online + 1 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Digital Pedagogy	Module 2	2 Nov	3 hrs 3-6pm CET + 1h individual work	3 hrs online + 1 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)

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Individualised learning path	Module 1	3 Nov	2 hrs lesson + 2 hrs live exercises 2-6pm CET	2hrs online course + 2 practical workshop	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Classroom management	Module 2	7 Nov	3 hrs 3-6pm CET + 1h individual work	3 hrs online + 1 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Remote Expert Solution for Vocational Technical Training Programmes	Module 3	8 Nov	3 hrs 3-6pm CET + 1h individual work	3 hrs online + 1 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Classroom management	Module 2	9 Nov	3 hrs 3-6pm CET + 1h individual work	3 hrs online + 1 individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Individualised learning path	Module 1	10 Nov	2 hrs lesson + 2 hrs live exercises 2-6pm CET	online course + 2 practical workshop	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Remote Expert Solution for Vocational Technical Training Programmes	Module 3	14 Nov	2 hrs 3-5pm CET + 26 hrs individual work	2 hrs online Q&A + 26 individual working hrs based on assignments (assignment + test + use case smart remote expert based on the upcoming Module 4)	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Pedagogical upskilling Final sharing of Project work	Module 2	16 Nov	20 hrs individual work + 3 hrs 3-6 pm CET debate about the project work	20 hrs individual working hrs based on project work + 3 hrs 3-6 pm debate about the project work	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)

Instructional design Final sharing of Project work	Module 1	21-Nov	21 hrs + 3 hrs 5-8pm CET debate about the project work	20 hrs individual working hrs based on project work + 3 hrs 5-8pm debate about the project work	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Introduction to the Environment and Waste Management	Module 4.1	27 Nov	2 hrs 3-5pm CET + 1 hr Q&A + 6 hrs individual work	2 hrs online + 1 hr Q&A + 6 hrs individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Waste Management Hierarchy and Recycling	Module 4.1	28 Nov	2 hrs 3-5pm CET + 1 hr Q&A + 8 hrs individual work	2 hrs online + 1 hr Q&A + 8 hrs individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Organic Waste Management and Waste to Energy	Module 4.1	29 Nov	2 hrs 3-5pm CET + 1 hr Q&A + 6 hrs individual work	2 hrs online + 1 hr Q&A + 6 hrs individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Waste Disposal and Treatment	Module 4.1	4 Dec	2 hrs 3-5pm CET + 1 hr Q&A + 2 hrs individual work	2 hrs online + 1 hr Q&A + 4 hrs individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Environmental Sustainability and Circular Economy	Module 4.1	5 Dec	2 hrs 3-5pm CET + 1 hr Q&A + 10 hrs individual work	2 hrs online + 1 hr Q&A + 10 hrs individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Green Jobs	Module 4.1	6 Dec	2 hrs 3-5pm CET + 1 hr Q&A + 8 hrs individual work	2 hrs online + 1 hr Q&A + 8 hrs individual working hrs based on assignments	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Waste Management Equipment and Machinery	Module 4.2 Unit 1	7 Dec	2 hrs 4-6pm CET + 1 hr Q&A + 3 hrs individual work	2 hrs online session	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)

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Health, Safety, and Environment	Module 4.2 Unit 2	12 Dec	2 hrs 4-6pm CET + 1 hr Q&A + 3 hrs individual work	2 hrs online session	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Basics of Electrical Systems	Module 4.2 Unit 3	13 Dec	2 hrs 4-6pm CET + 1 hr Q&A + 3 hrs individual work	2 hrs online session	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Basics of Mechanical Drive Systems	Module 4.2 Unit 4	14 Dec	2 hrs 4-6pm CET + 1 hr Q&A + 3 hrs individual work	2 hrs online session	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Remote Expert Solution for Vocational Technical Training Programmes	Module 3	19 Dec	2 hrs 3-5pm CET + 20 hrs individual work	2 hrs online for assignment review and Q&A + 20 hrs individual working hrs to outline the workflow (based on schematics and collect materials visual/technical drawing etc)	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Foundation of micro-entreprneurship skills for Micro-SMEs	Module 5 Unit 1: Creativity Unit 2: Intro to Entrepreneurship	20 Dec	4 hrs 2-5pm CET	3 hours of online interactive training + 1 hour of self-paced individual assignment	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)

Foundation of micro-entrepreneurship skills for Micro-SMEs	Module 5 Unit 3: Opp. Analysis Unit 4: Market Research	9 Jan	4 hrs 2-5pm CET	3 hours of online interactive training + 1 hour of self-paced individual assignment	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Foundation of micro-entrepreneurship skills for Micro-SMEs	Module 5 Unit 5: Business Modelling	10 Jan	4 hrs 2-5pm CET	3 hours of online interactive training + 1 hour of group assignment	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Remote Expert Solution for Vocational Technical Training	Module 3	11 Jan	2 hrs 3-5pm CET + 14 hrs individual work	2 hrs online for assignment review and Q&A + 14 hrs individual working hrs to test the workflow	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Foundation of micro-entrepreneurship skills for Micro-SMEs	Module 5 Unit 6: Business finance	17 Jan	4 hrs 2-5pm CET	1 hr of group presentations on BMC + 2 hours of online interactive training + 1 hour of self-paced individual assignment	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Remote Expert Solution for Vocational Technical Training Programmes	Module 3	18 Jan	2 hrs 3-5pm CET debate about the project work	2 hrs 3-5pm debate about the project work including the individual assessment (questionnaire)	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)
Foundation of micro-entrepreneurship skills for Micro-SMEs	Module 5 Unit 7: Pitching	24 Jan	4 hrs 2-5pm CET	1 hr of interactive training on pitching best practices + 3 hours of group mock pitches	Quiet environment that allows for concentration	50 (25 Nigeria, 25 Ghana)

ANNEX 2 – QUESTIONNAIRES FOR TRAINERS

- What is your overall satisfaction and general impressions about the Training received?
- What did you appreciate the most?
- What is the most important knowledge you have gained from the training?
- How will you apply that knowledge with your students?
- Did you already have time to apply the knowledge from the training somewhere in your professional practice or in your personal life? If yes please give a few examples and write them down.
- Do you feel ready to give the training to your students about some of the topics you learned about? If yes, which ones? If no, why not? What are you still missing?
- Was there anything you did like about the training? Please be honest. What would be your recommendation for improvement of the training?
- What did you appreciate most about facilitators? Was there anything they could have done differently in order to improve your learning experience?
- How did you feel about training materials? Were they useful for the learning process? Is there something you would change?
- Is there any other feedback or comments you would like to share about your experience in the Train the Trainers course?

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ANNEX 3- TRAINERS EVALUATION FORM (SCORING CRITERIA)

Trainers were evaluated based on the below criteria, with scores ranging from 1 (lowest) to 5 (highest). Remarks may be provided to offer specific feedback on each criterion, highlighting strengths and areas for improvement.

TABLE 2 TRAINERS' EVALUATION FORM

Criteria	Score (1 - 5)	Remarks
Content Relevance and Depth		
Relevance to chosen micro topic		
Depth of understanding and analysis		
Clarity and Organisation		
Clear structure and flow		
Coherent explanation of concepts		
Engagement and Interaction		
Ability to engage audience		
Encouragement of interaction		
Use of Visual Aids or Technology		
Effective use of visual aids		
Integration of technology (if used)		
Overall Effectiveness		
Overall impact and impression		
Ability to convey key messages		